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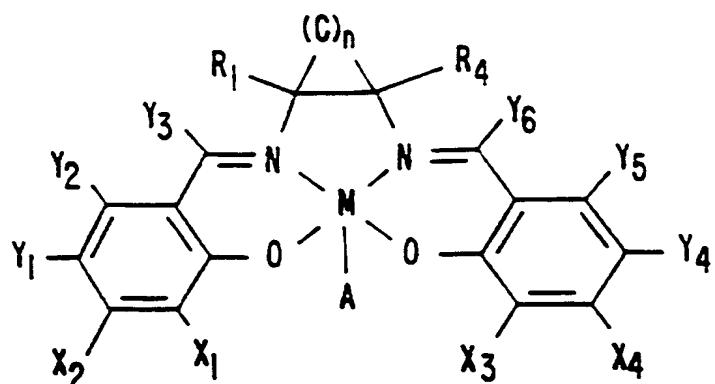


FIG. 1.

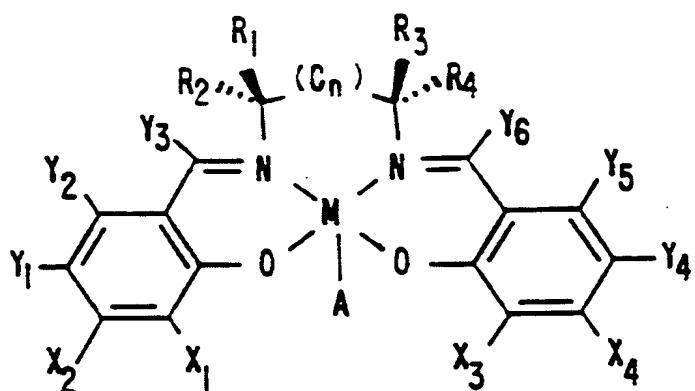
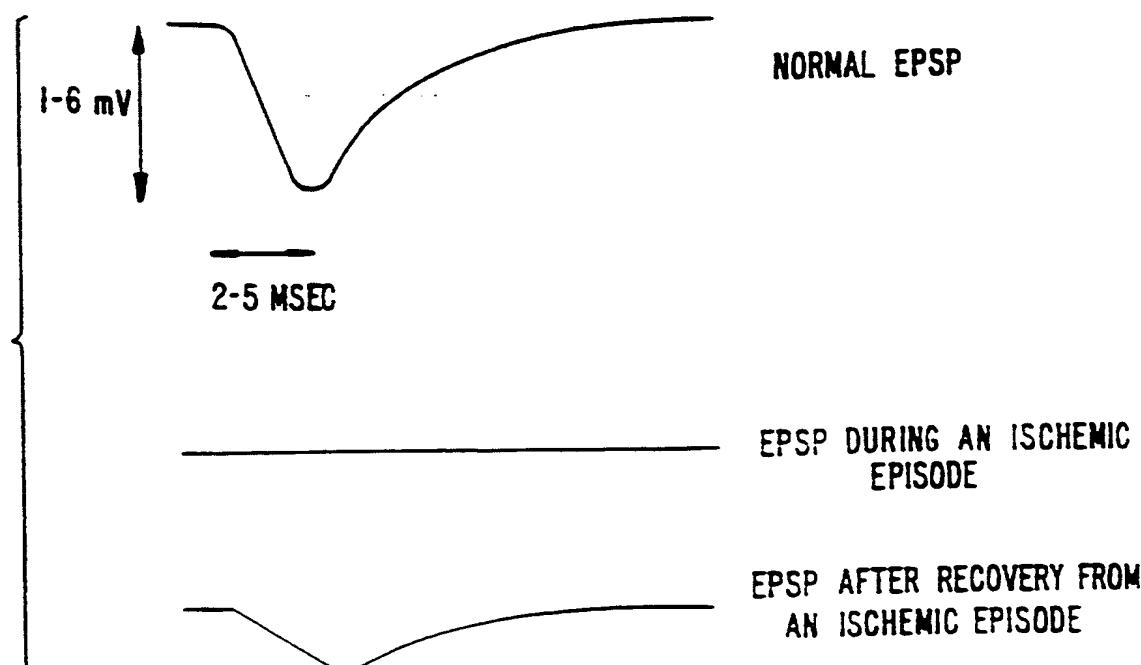
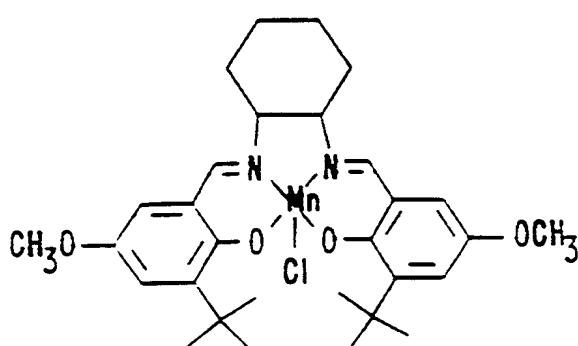
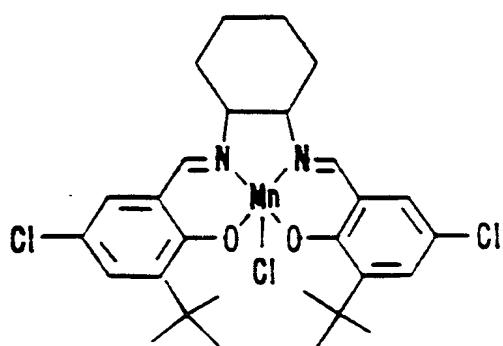
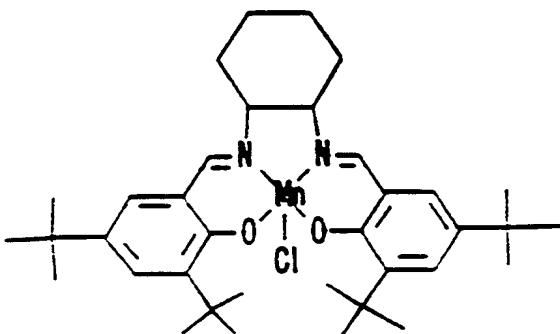
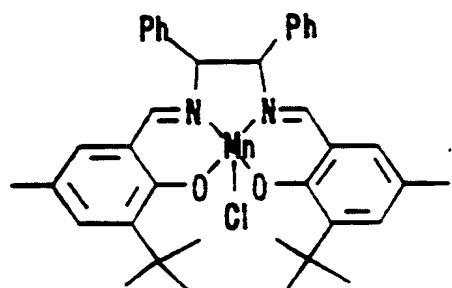
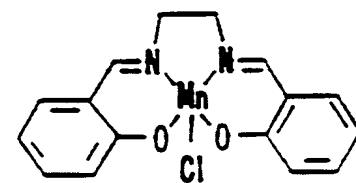
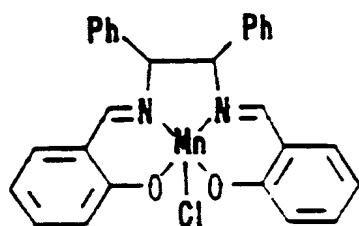
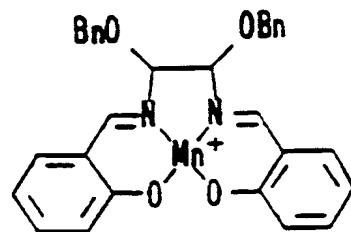
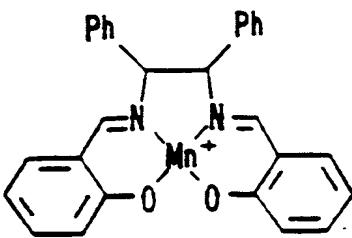


FIG. 2.

FIG. 4.  
SUBSTITUTE SHEET (RULE 26)

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*FIG. 3.*  
SUBSTITUTE SHEET (RULE 26)

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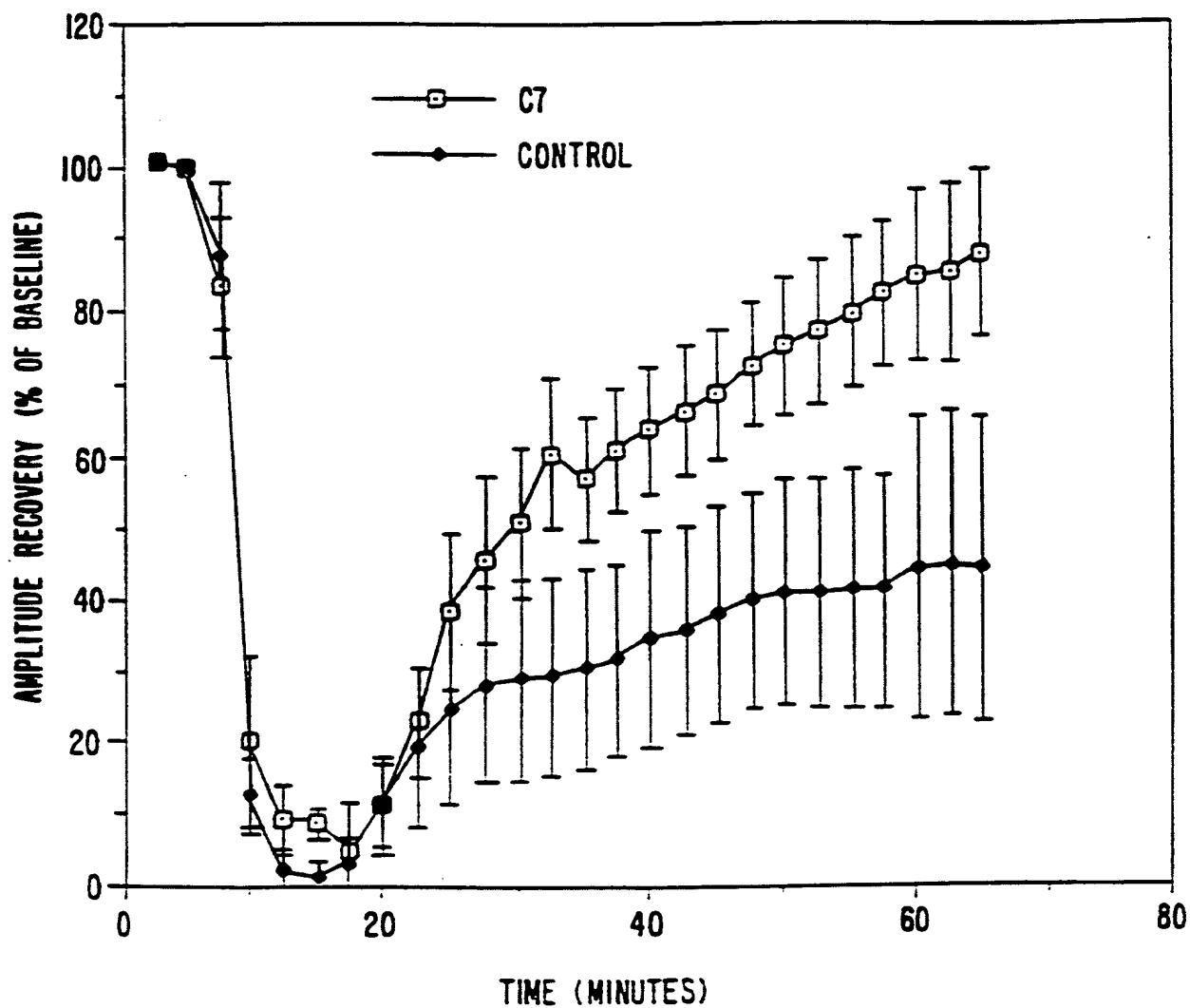


FIG. 5.

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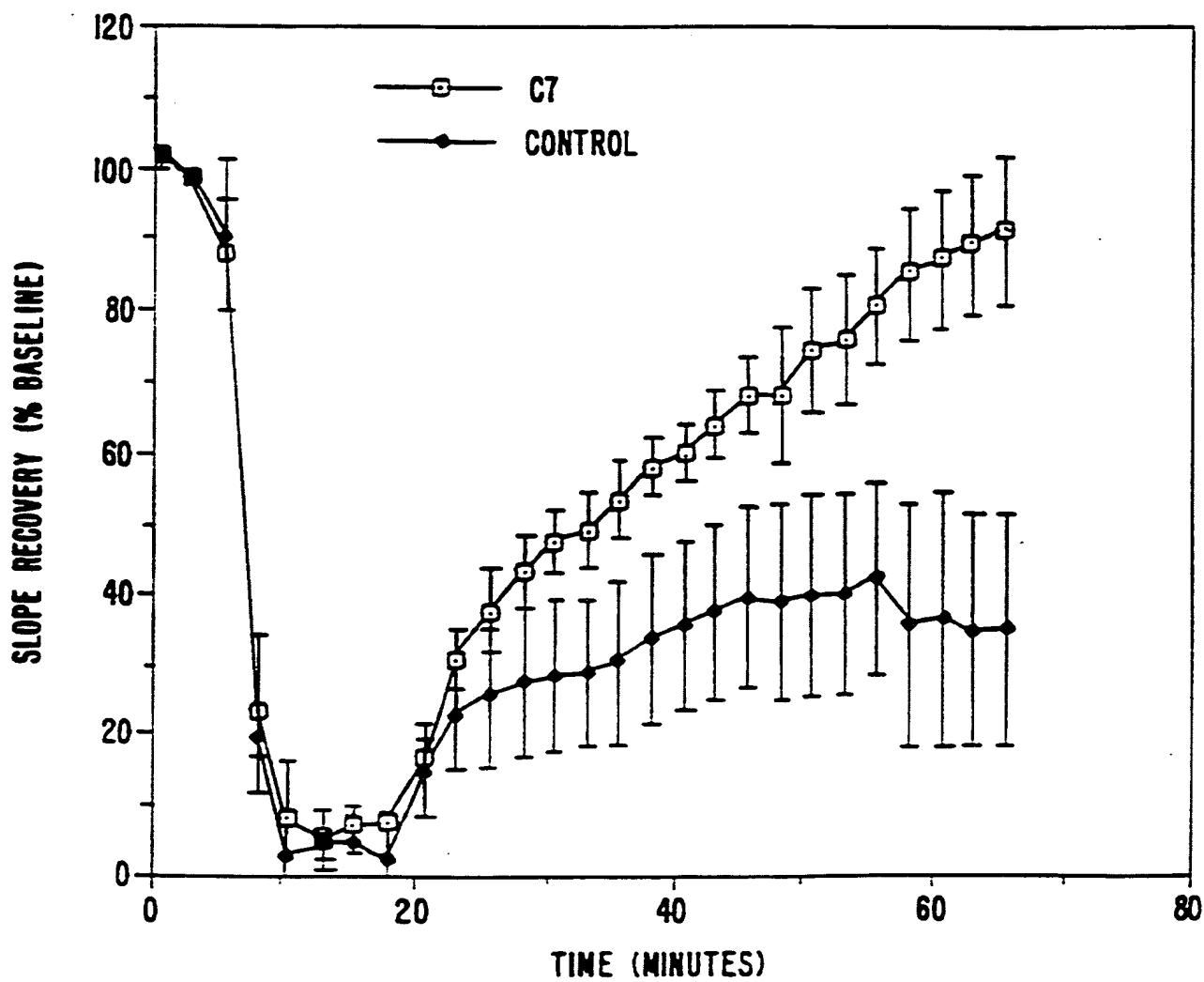


FIG. 6.

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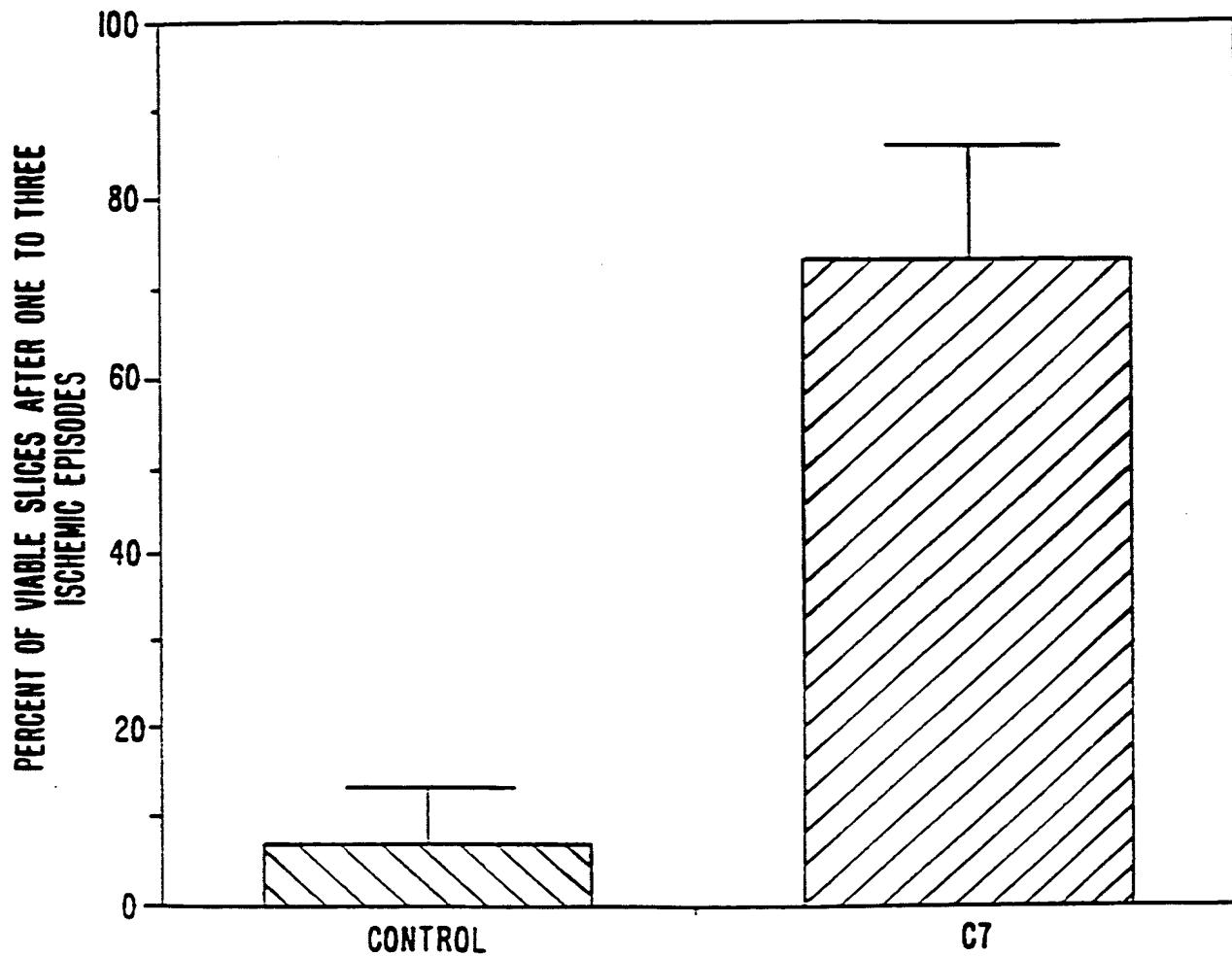
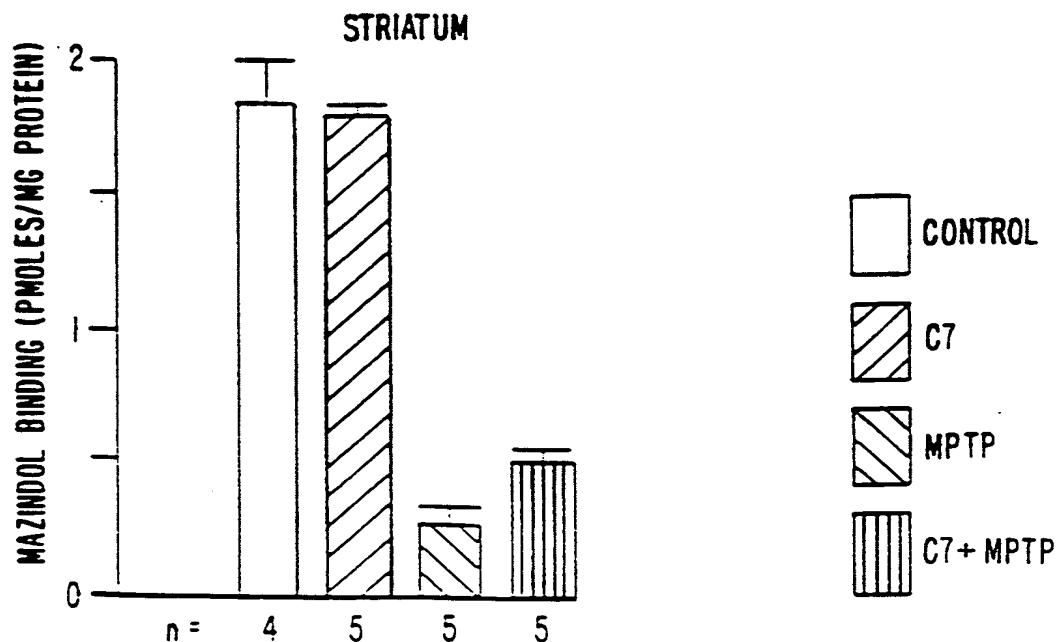
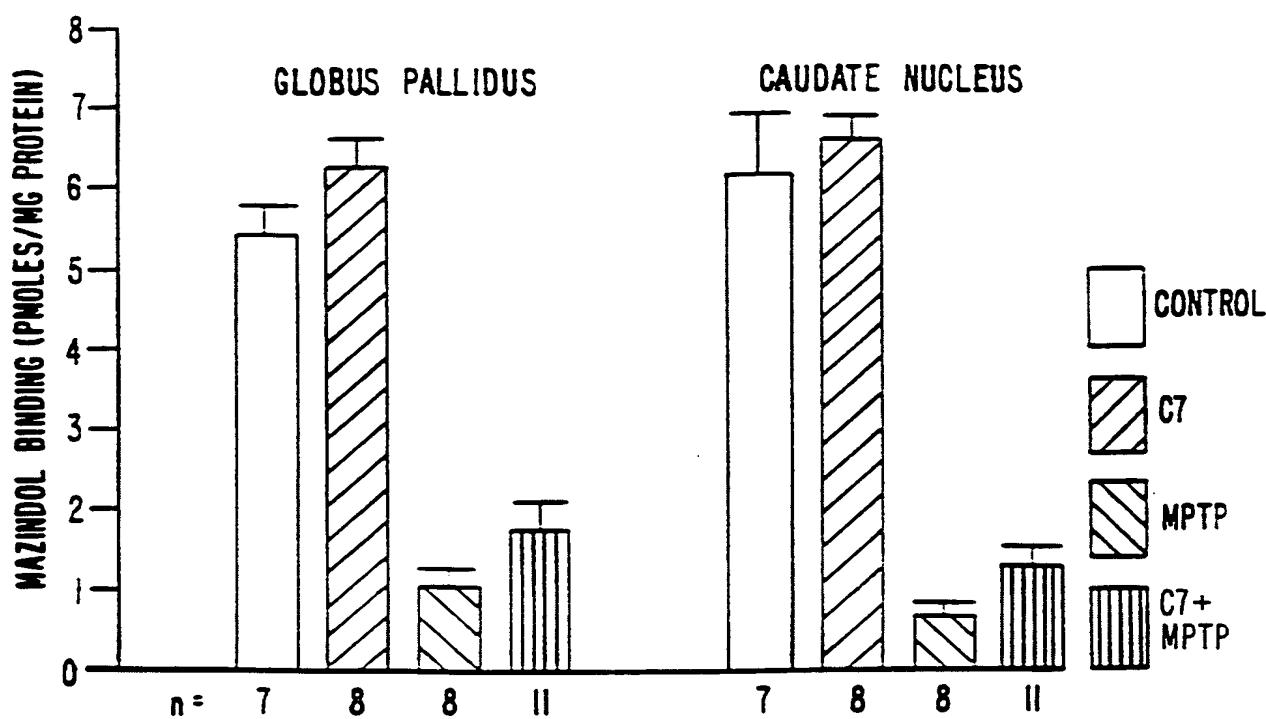


FIG. 7.

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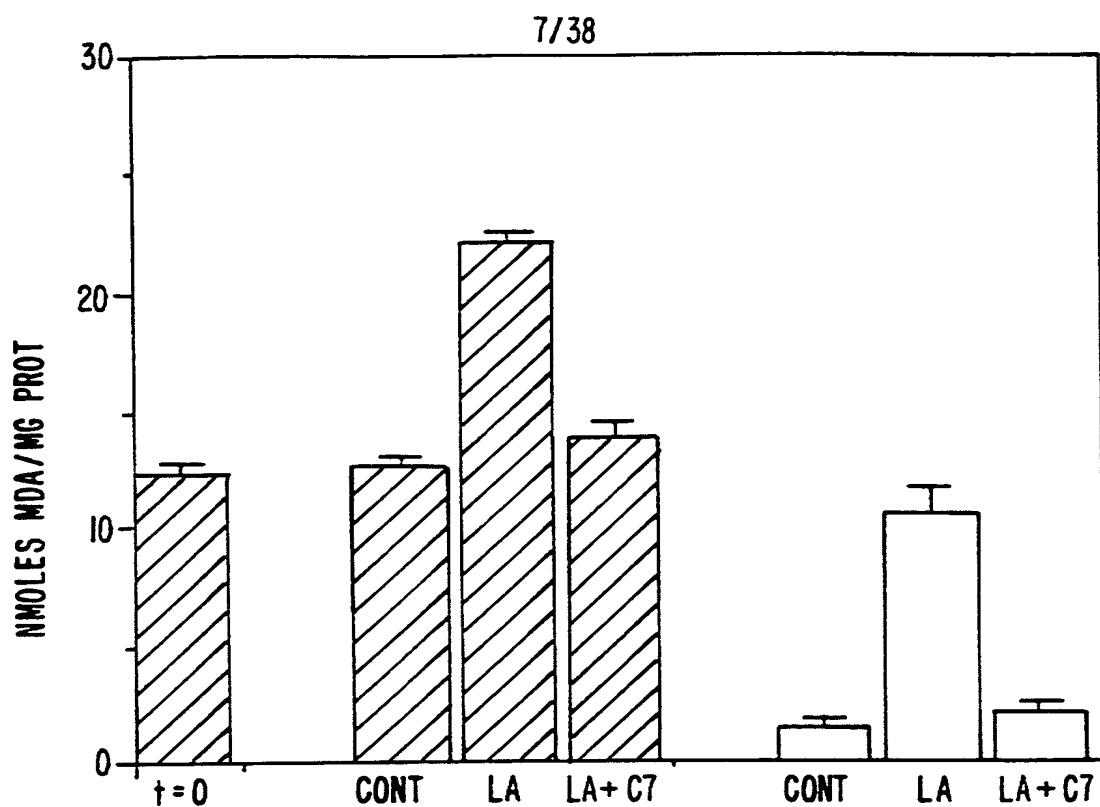


FIG. 9.

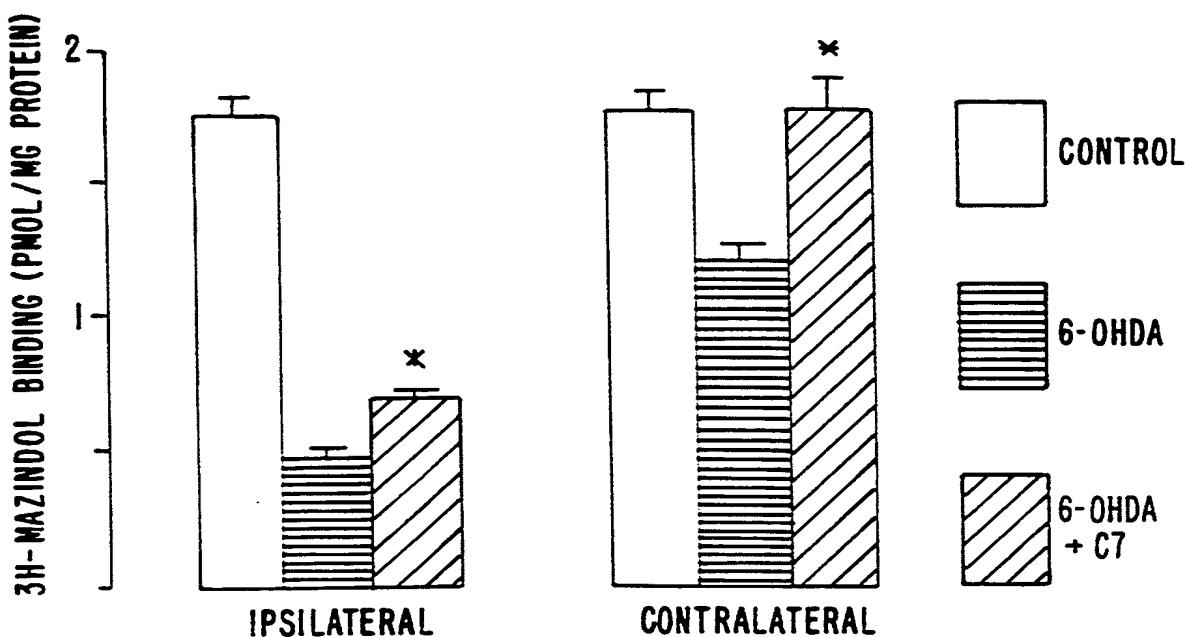


FIG. 10.

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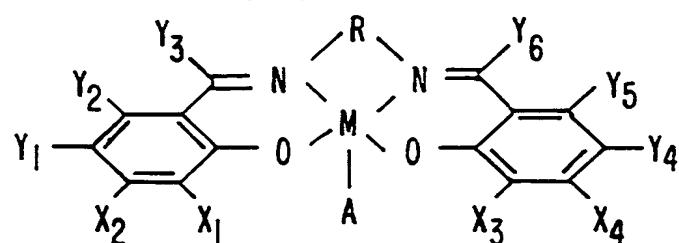


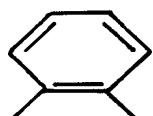
FIG. IIIA.

UNSUBSTITUTED

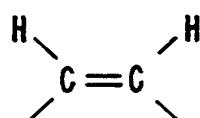
R =:



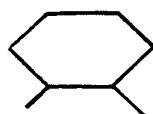
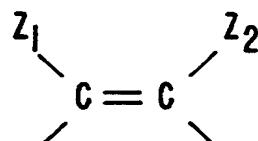
1,2 ETHANE DIYL



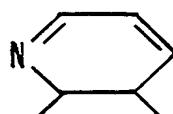
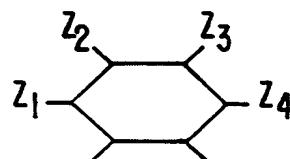
1,2 BENZENE DIYL

SUBSTITUTED

1,2 ETHENE DIYL



1,2 CYCLOHEXANEDIYL



2,3 PYRIDINE DIYL

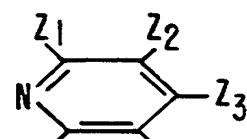


FIG. IIIB.

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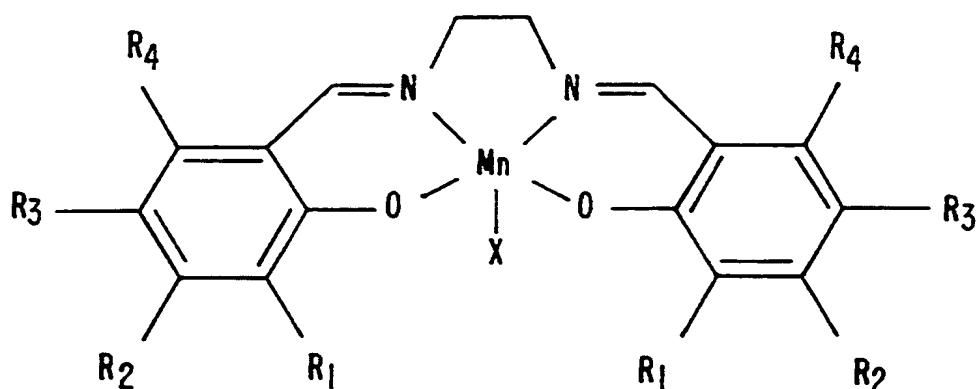


FIG. 12A.

	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>	X
C7	H	H	H	H	Cl
C31	H	H	H	H	OAc
C36	F	H	H	H	OAc
C37	F	H	H	H	Cl
C41	H	H	OMe	H	Cl
C38	H	H	OMe	H	OAc
C32	OMe	H	H	H	OAc
C40	OMe	H	H	H	Cl
C35	H	OMe	H	OMe	OAc
C39	H	OMe	H	OMe	Cl
C33	H	OMe	H	H	OAc
C34	H	OMe	H	H	Cl

FIG. 12B.

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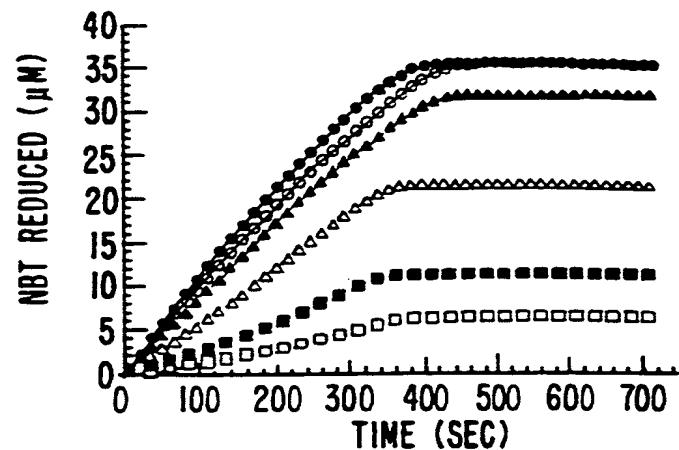


FIG. 13A.

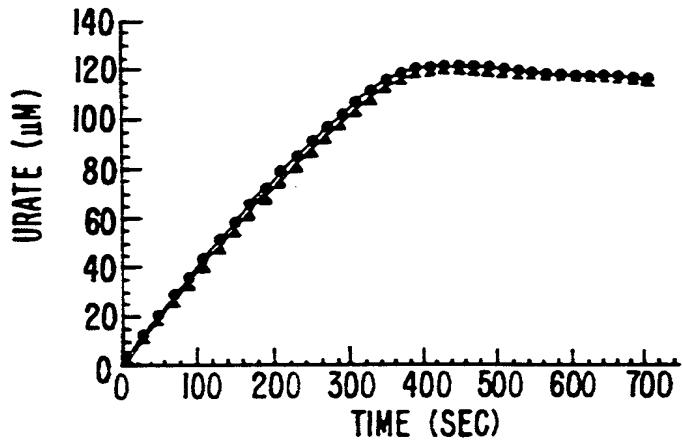


FIG. 13B.

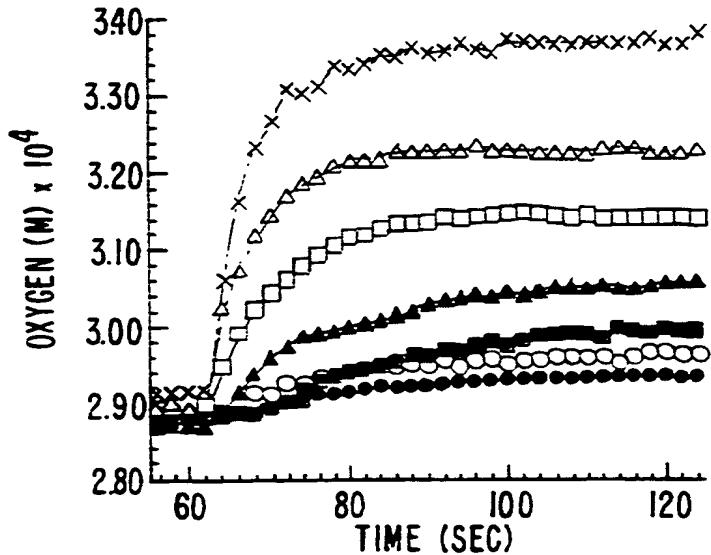


FIG. 14.

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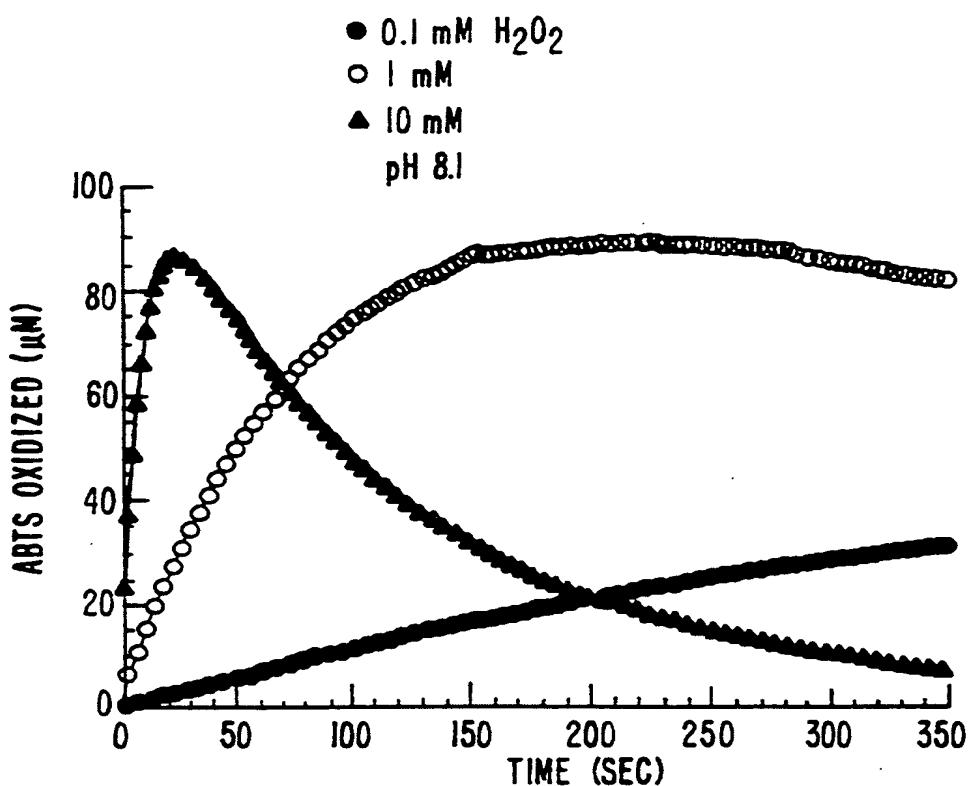
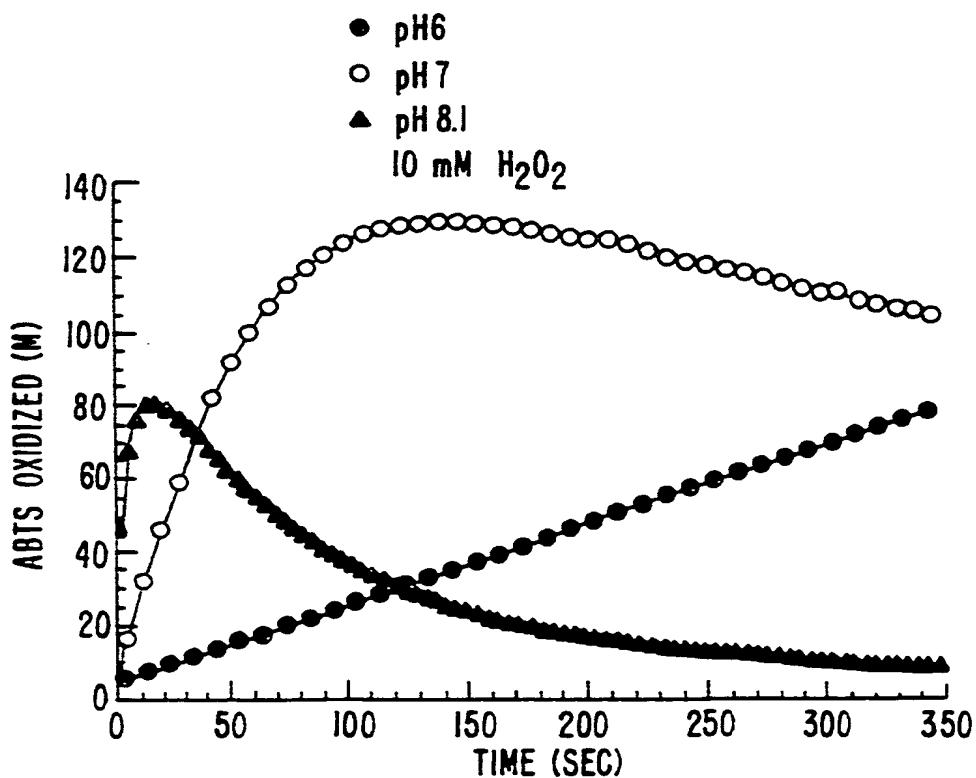


FIG. 15A.

FIG. 15B.  
SUBSTITUTE SHEET (RULE 26)

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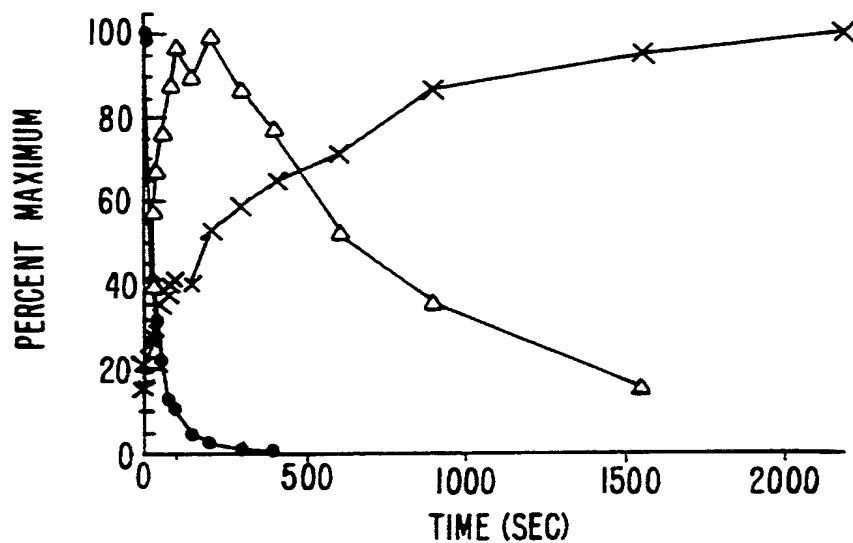


FIG. 16A.

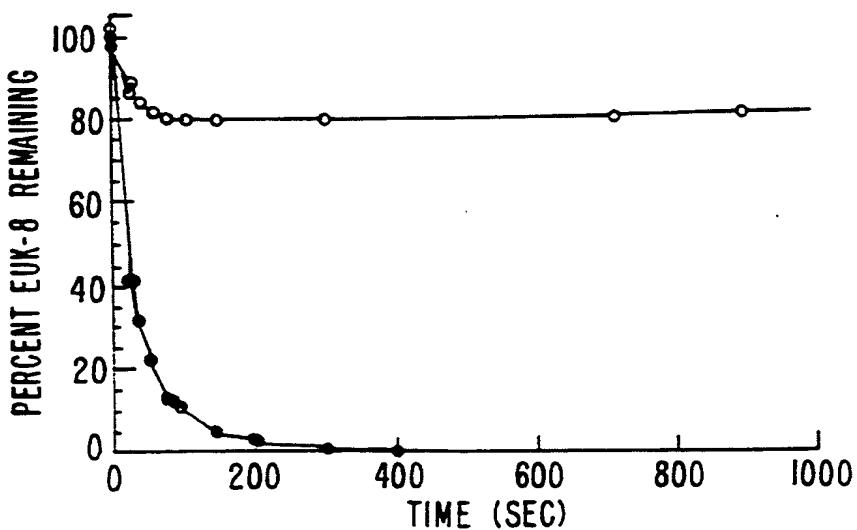


FIG. 16B.

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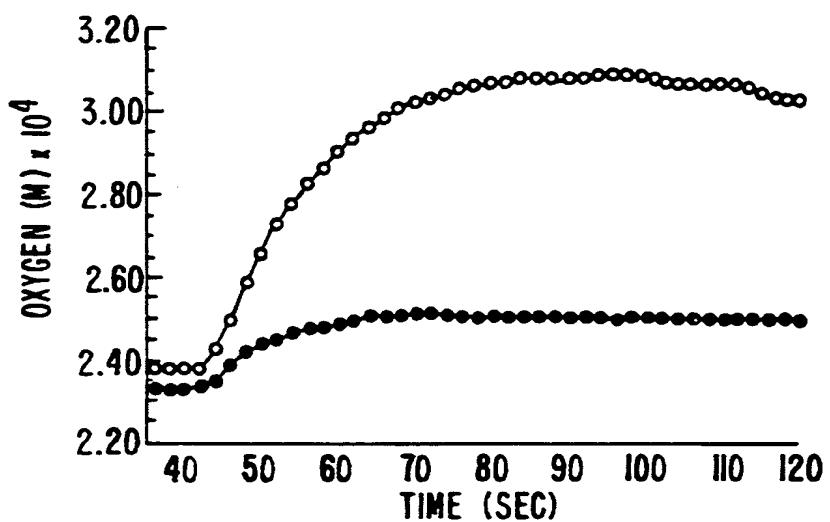


FIG. 17.

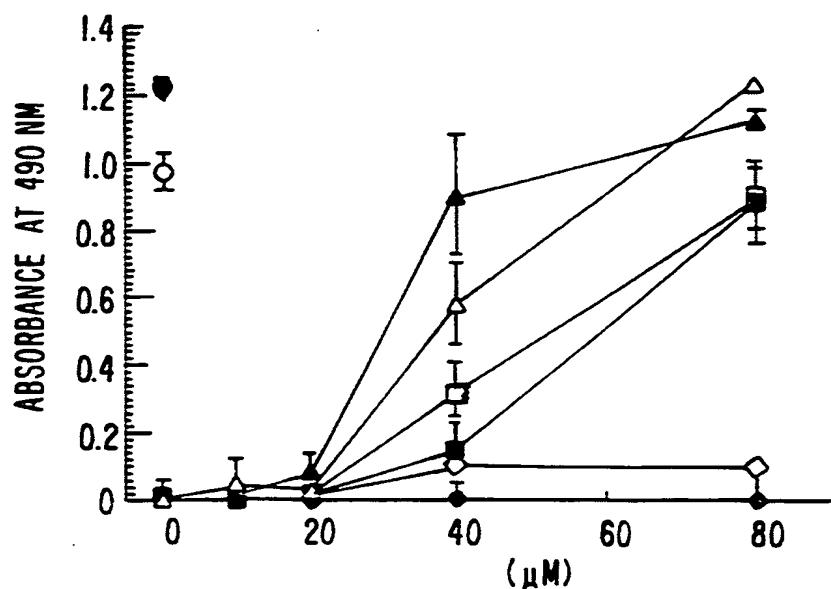


FIG. 18.

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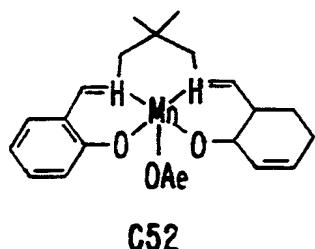
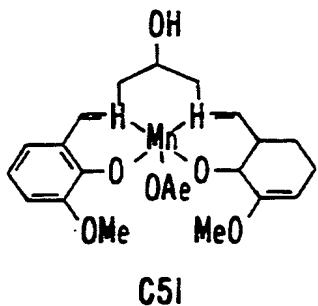
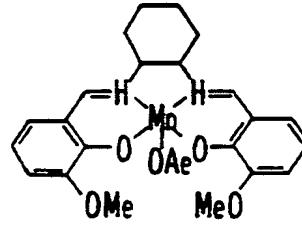
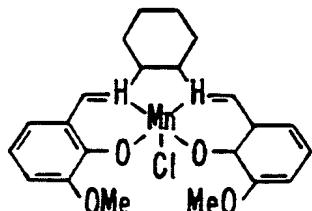
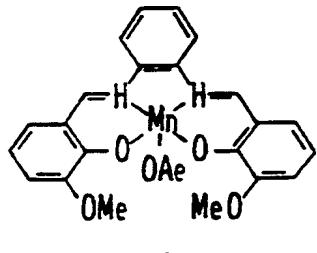
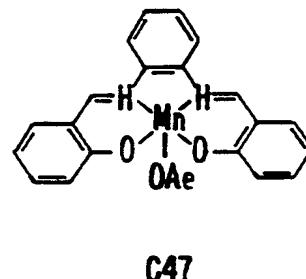
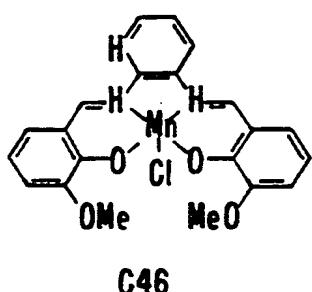
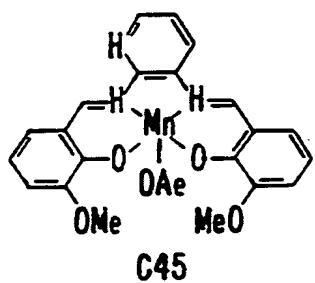
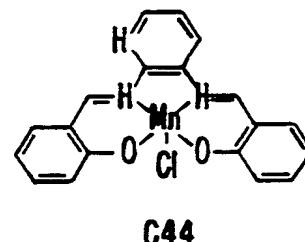
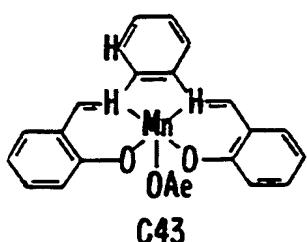
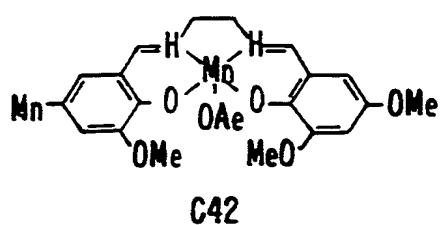


FIG. 19A.

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COMPOUND	CATALASE RATE	CATALASE ENDPOINT	PEROXIDASE RATE	SOD ACTIVITY
C7/C31	1.0	1.0	1.0	1.0
C32	1.9	3.2	1.6	0.9
C42	2.1	3.0	1.7	1.3
C43	4.6	5.7	0.8	1.4
C44	4.3	7.7	0.4	ND
C45	5.7	10.4	0.2	ND
C46	7.4	12.9	0.2	ND
C47	3.3	4.8	0.9	ND
C48	5.4	9.8	0.8	ND
C49	1.5	4.4	1.6	ND
C50	1.4	2.3	1.5	ND
C51	0.4	0.4	0	ND
C52	0.6	0.3	0	ND

FIG. 19B.

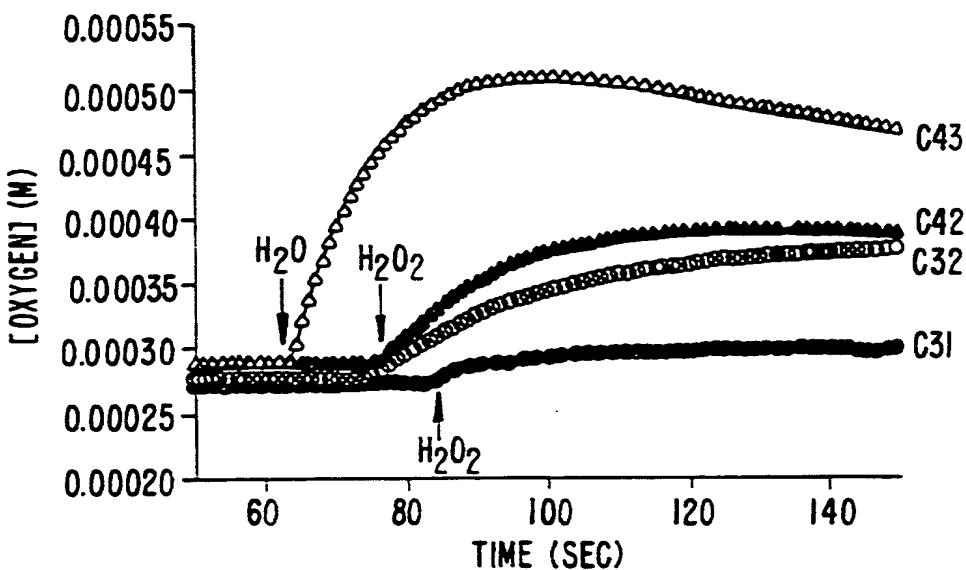


FIG. 20.

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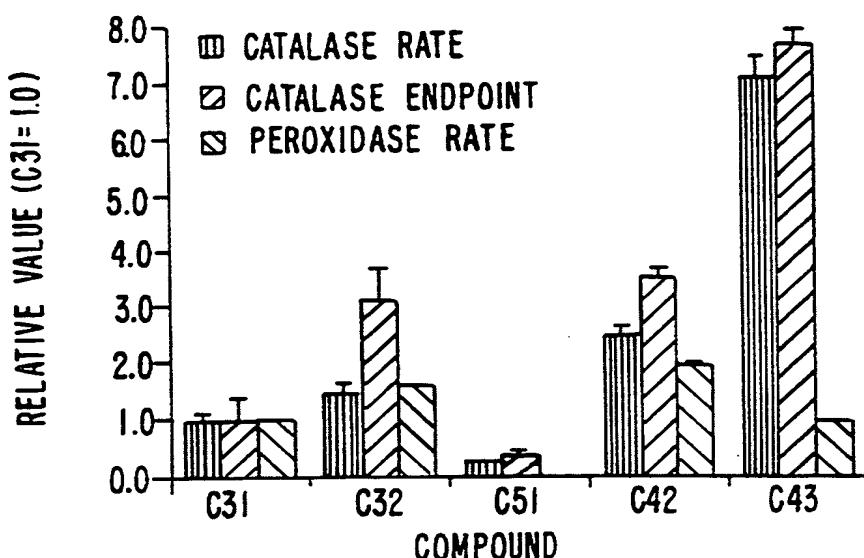


FIG. 21.

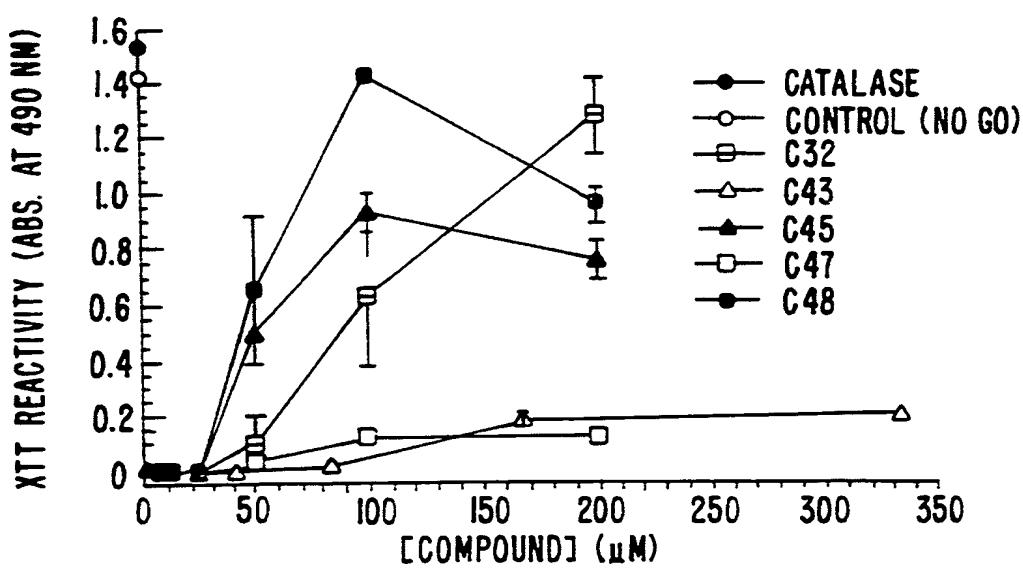


FIG. 22.

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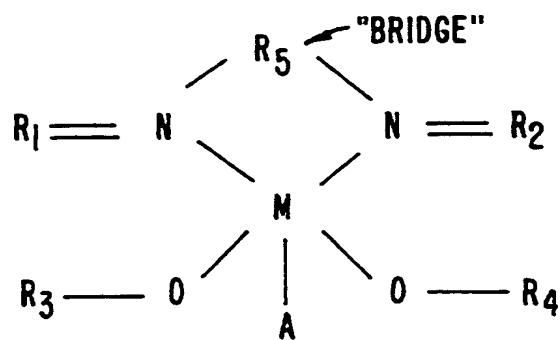


FIG. 23A.

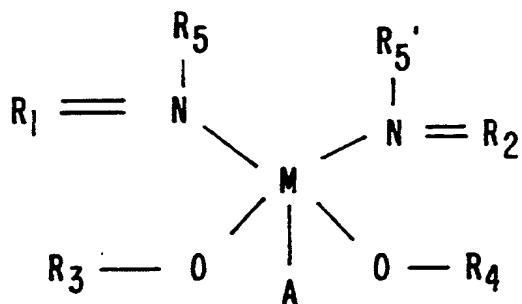


FIG. 23B.

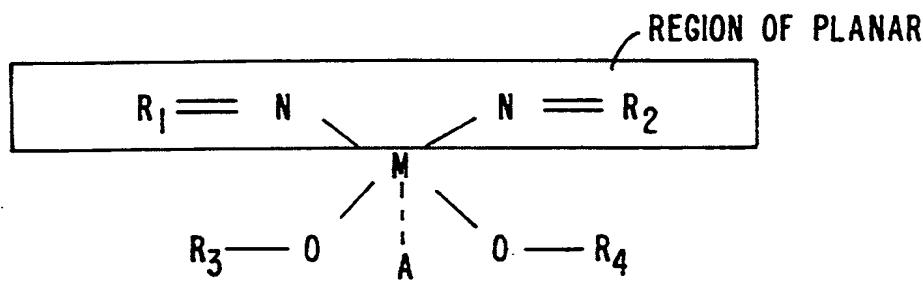


FIG. 23C.

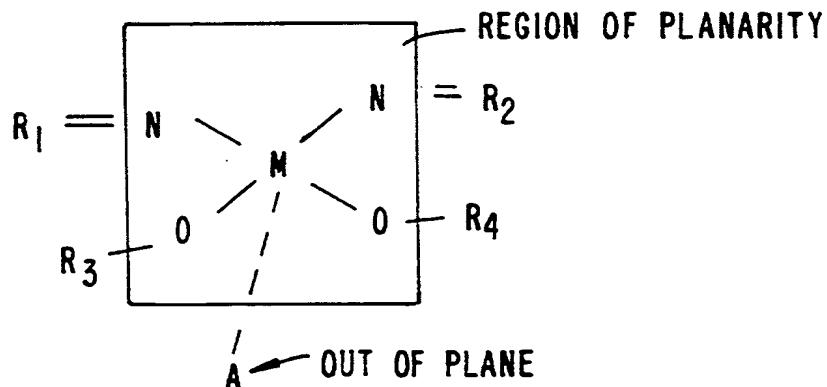


FIG. 23D.

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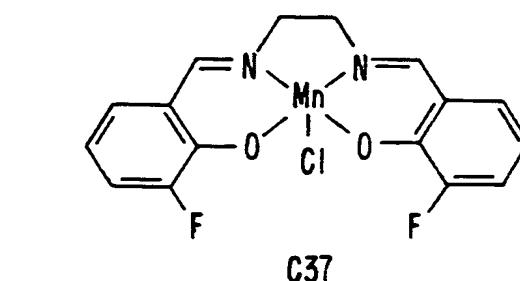
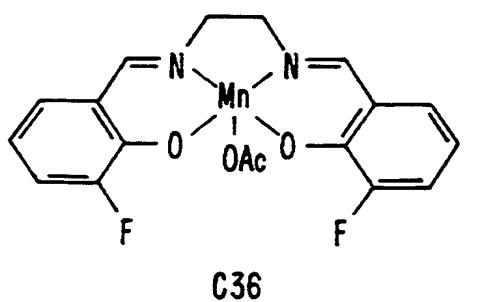
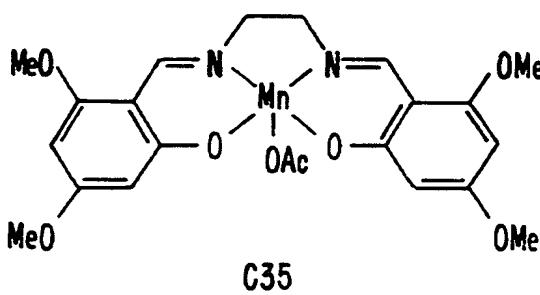
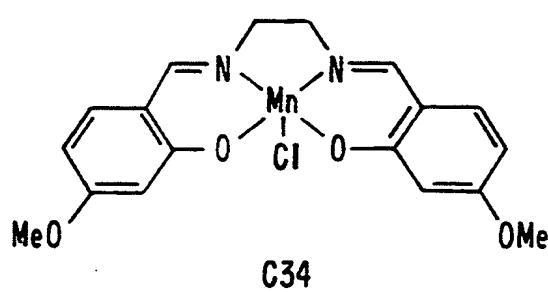
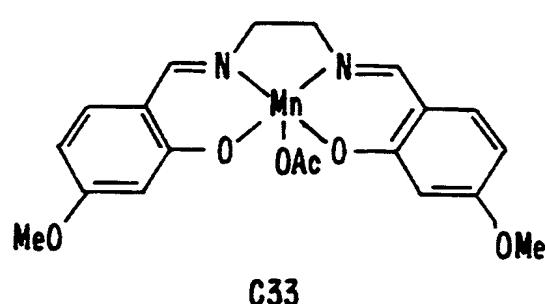
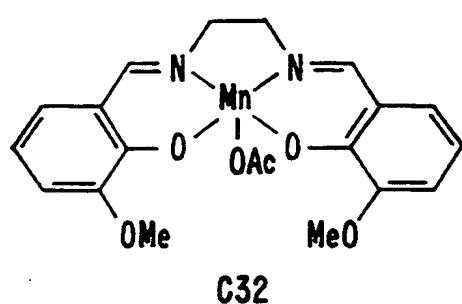
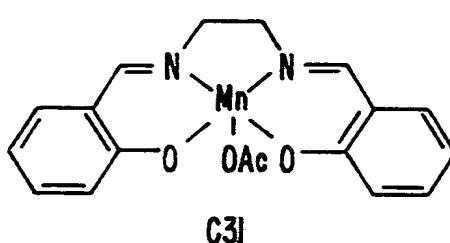
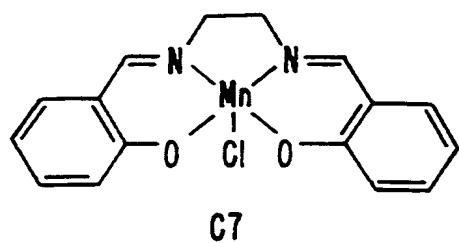


FIG. 24A.

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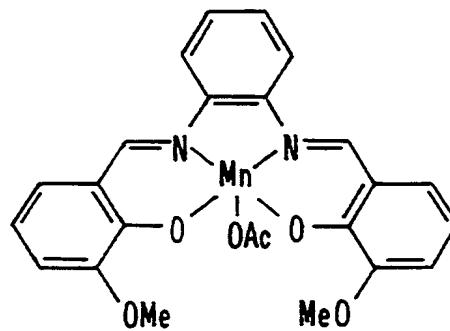
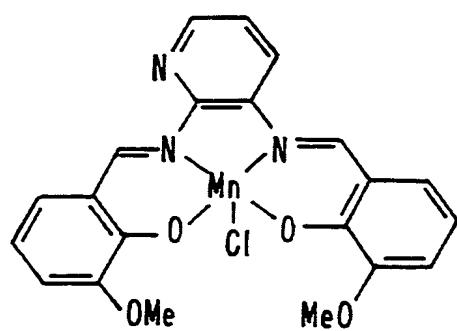
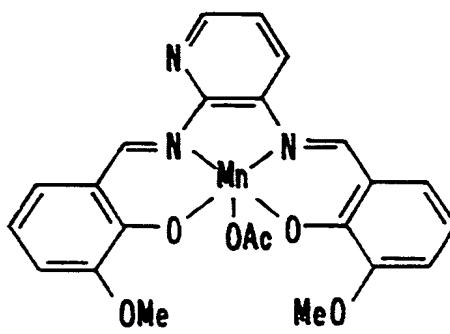
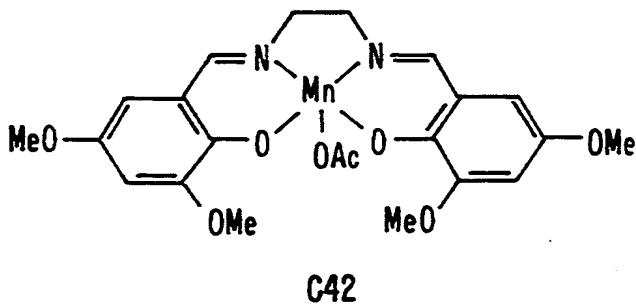
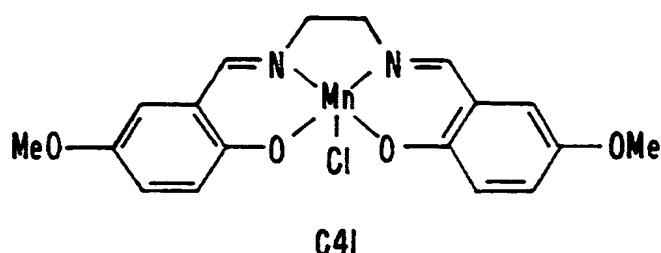
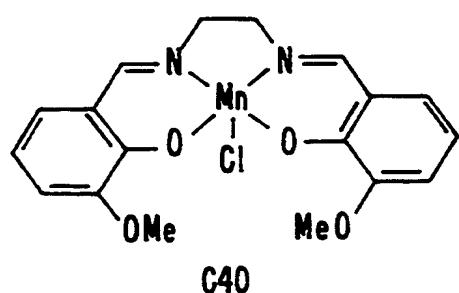
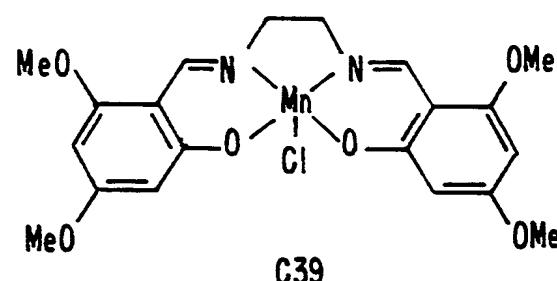
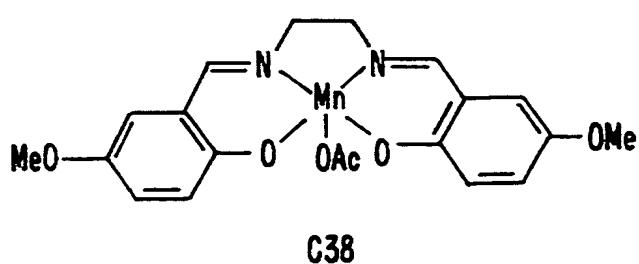
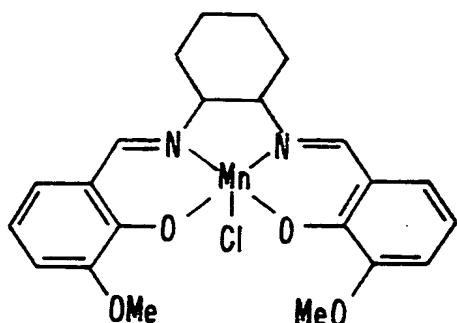
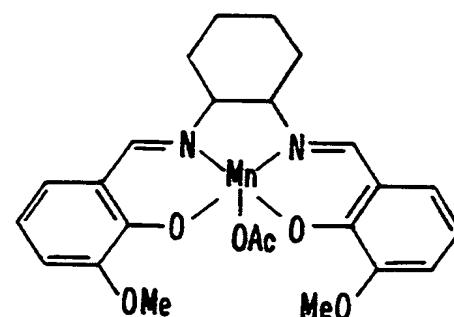


FIG. 24B.

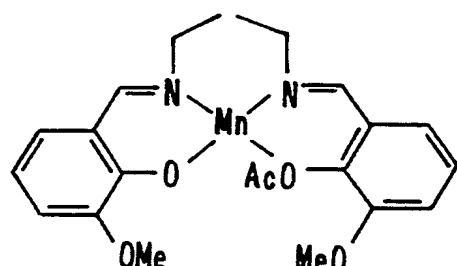
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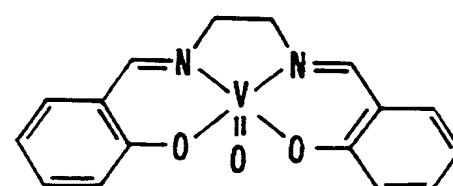
C49



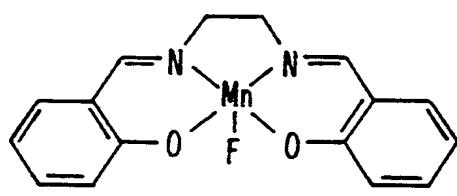
C50



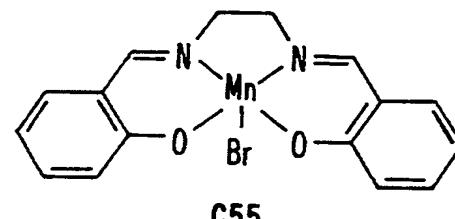
C51



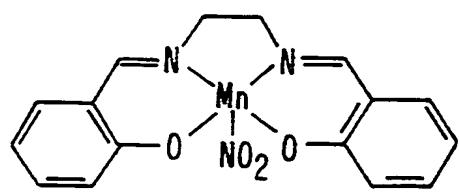
C53



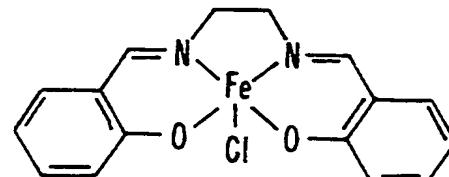
C54



C55



C56

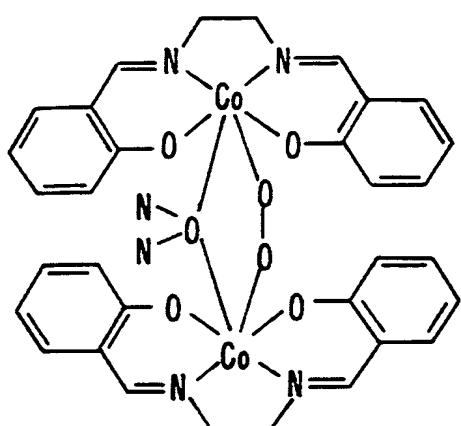


C57

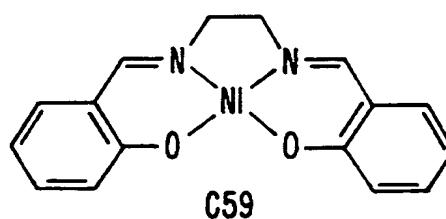
FIG. 24C.

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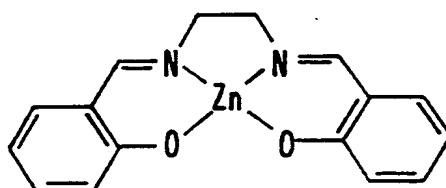
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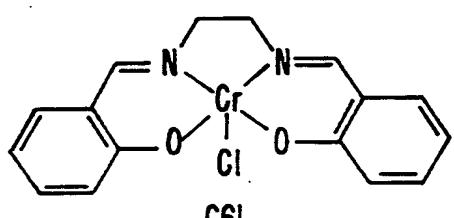
C58



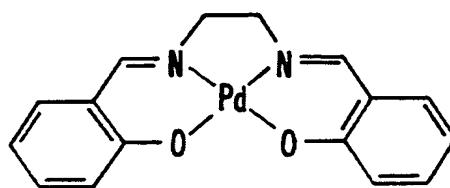
C59



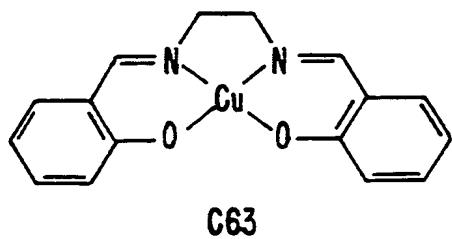
C60



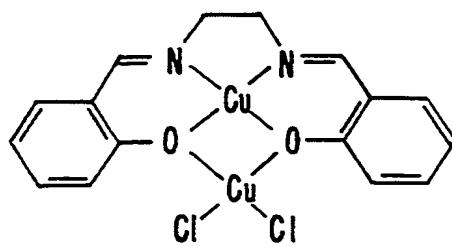
C61



C62



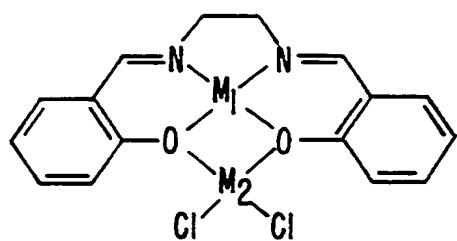
C63



C64

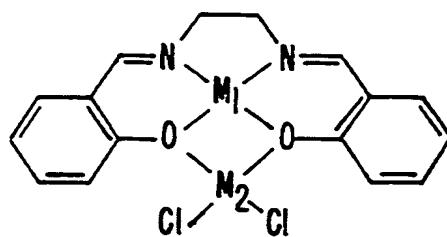
FIG. 24D.

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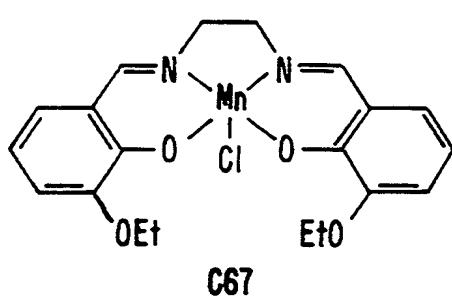
WHERE  $\text{Cu} = \text{M}_1$   
 $\text{Zn} = \text{M}_2$

C65

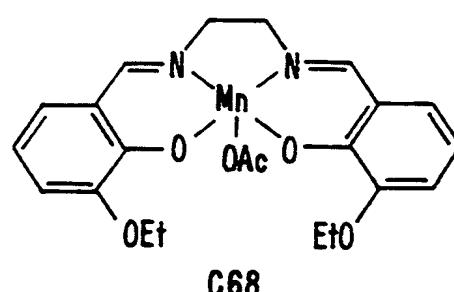


WHERE  $\text{Cu} = \text{M}_1$   
 $\text{Co} = \text{M}_2$

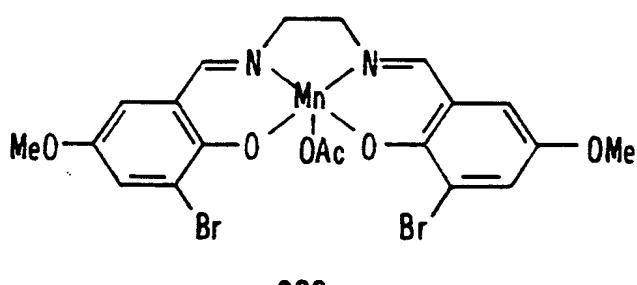
THE METALS MAY BE SWITCHED  
C66



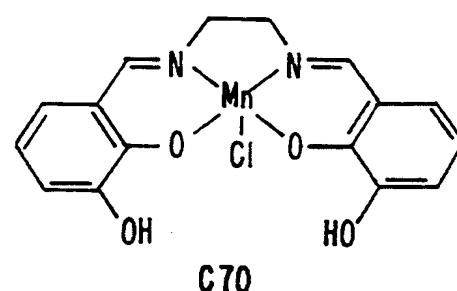
C67



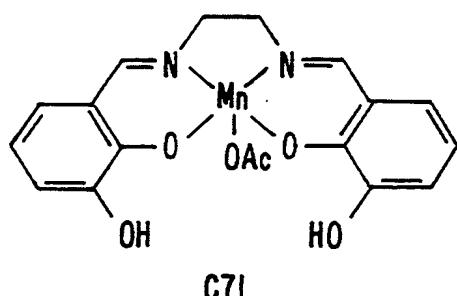
C68



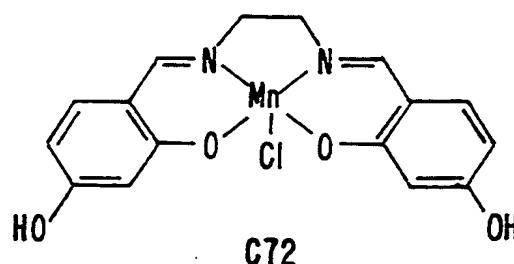
C69



C70



C71



C72

FIG. 24E.

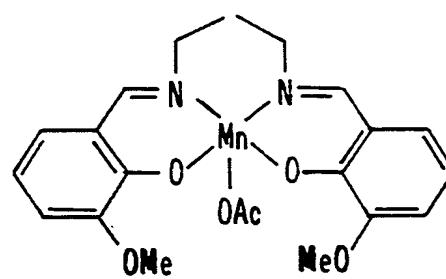
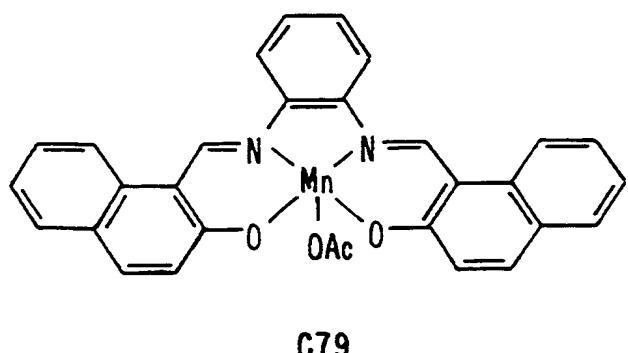
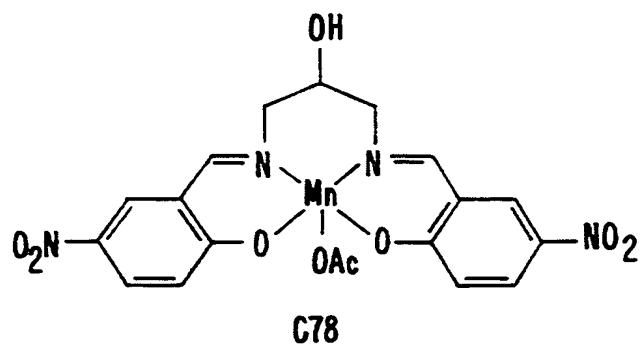
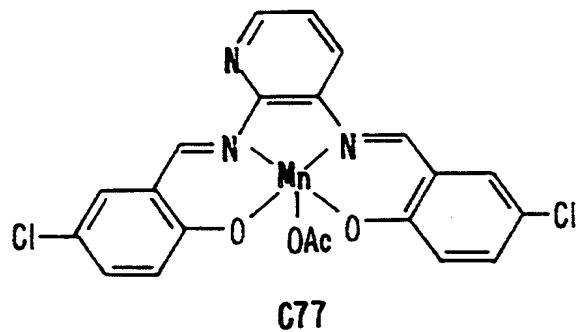
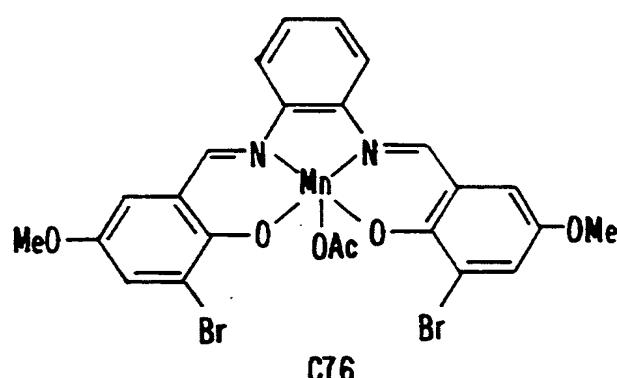
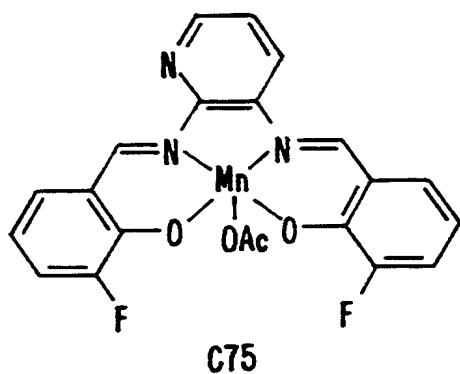
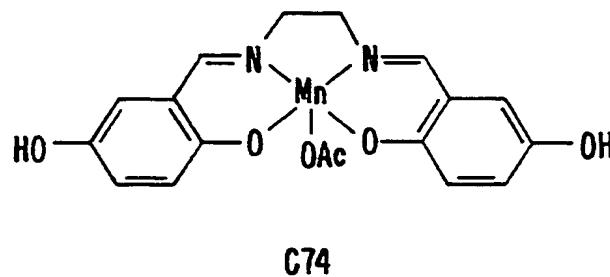
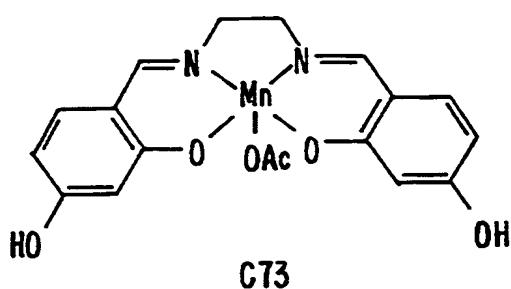
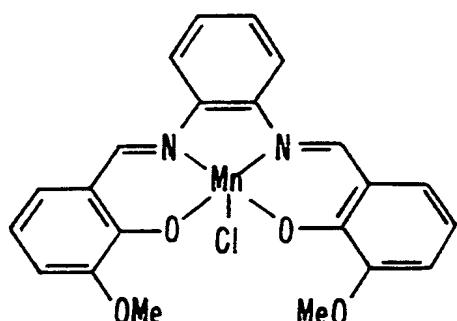
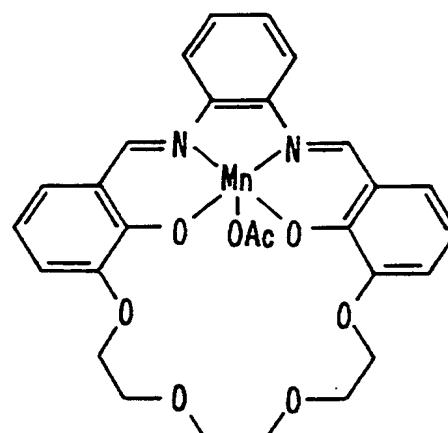


FIG. 24F.  
SUBSTITUTE SHEET (RULE 26)

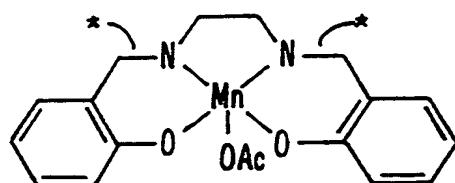
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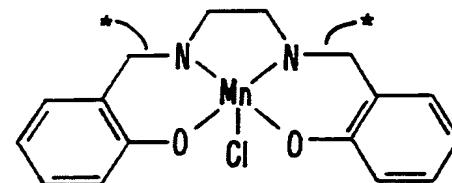
C81



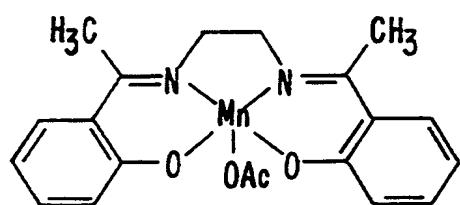
C82



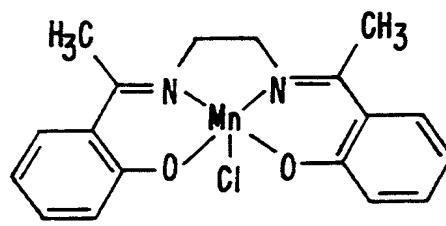
C83



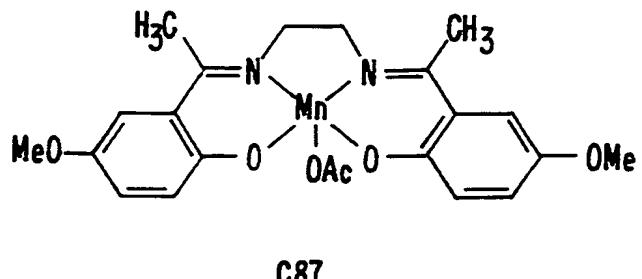
C84



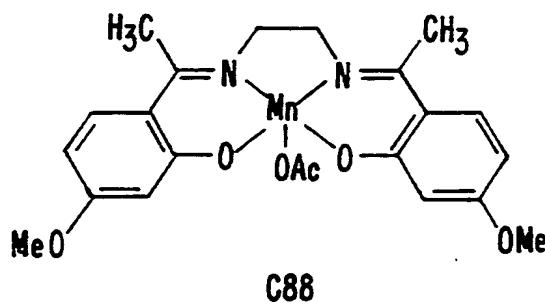
C85



C86



C87



C88

FIG. 24G.

SUBSTITUTE SHEET (RULE 26)

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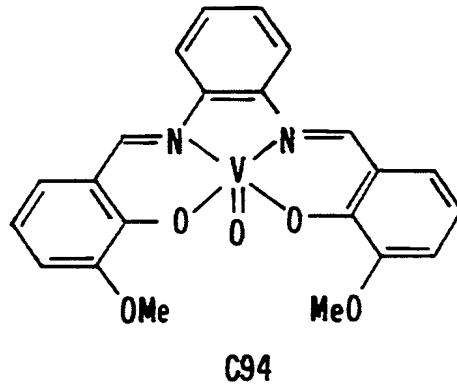
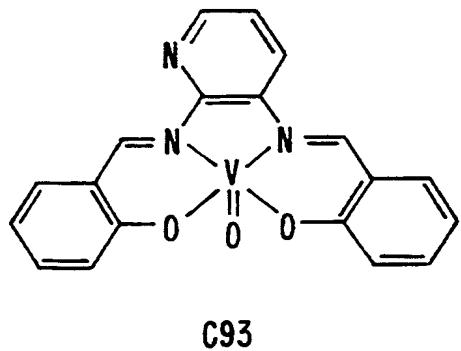
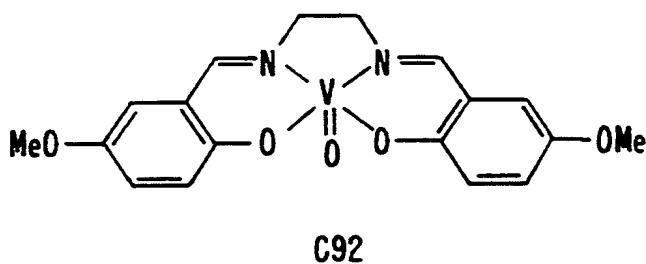
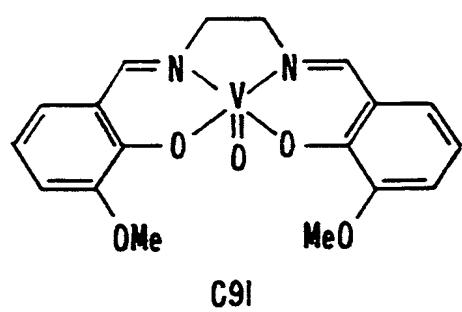
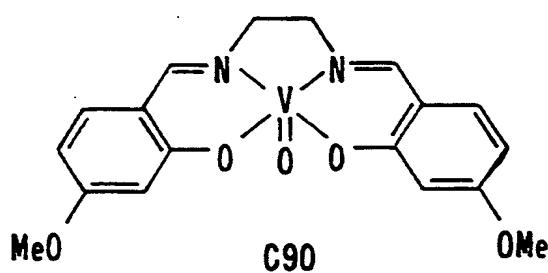
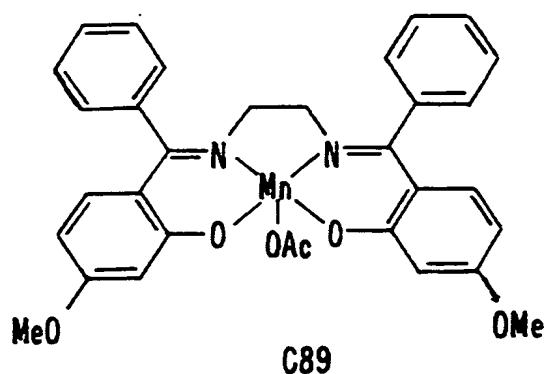
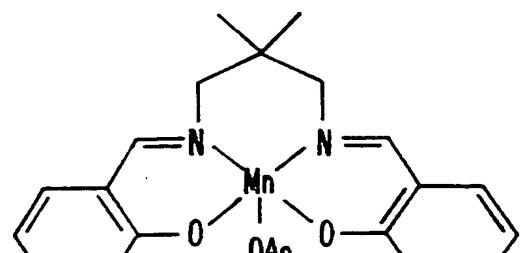
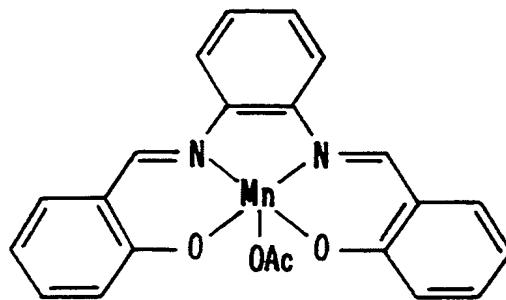


FIG. 24H.

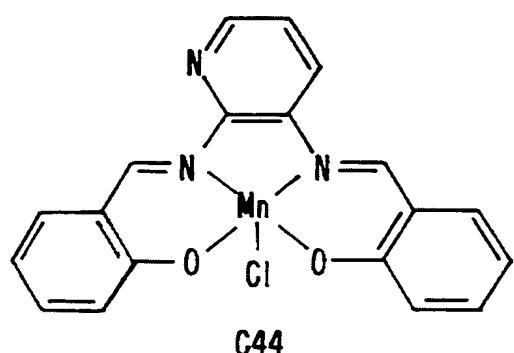
SUBSTITUTE SHEET (RULE 26)



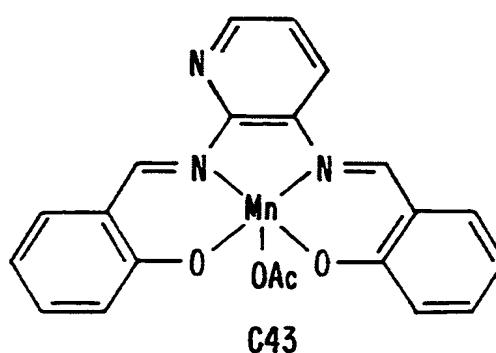
C52



C47



C44



C43

FIG. 24I.

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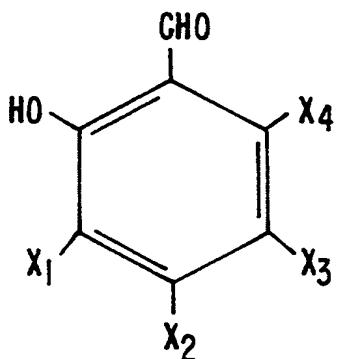


FIG. 25A.

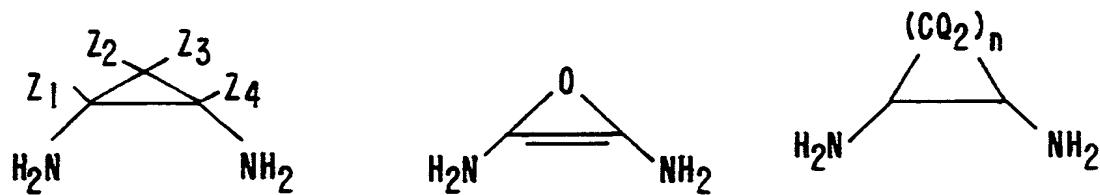
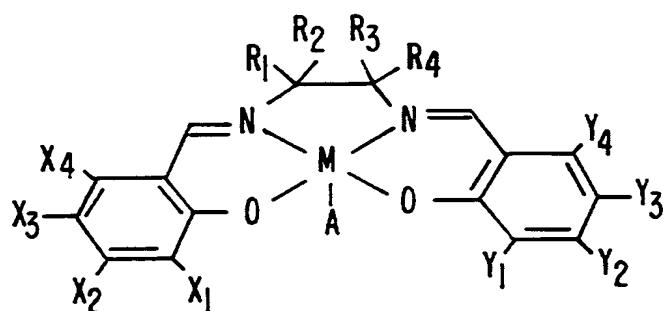


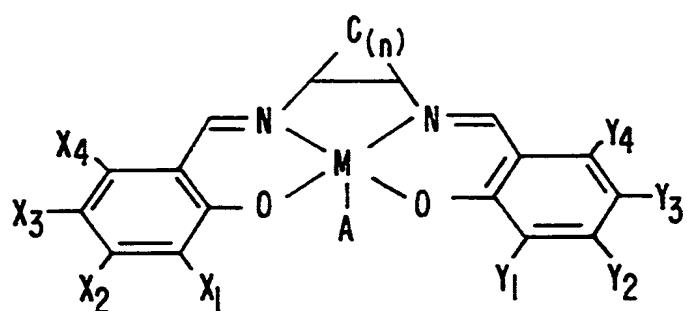
FIG. 25B.

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STRUCTURE X



STRUCTURE XI



STRUCTURE XII

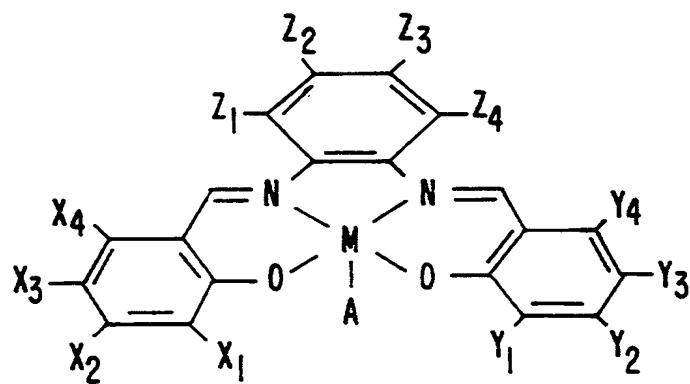
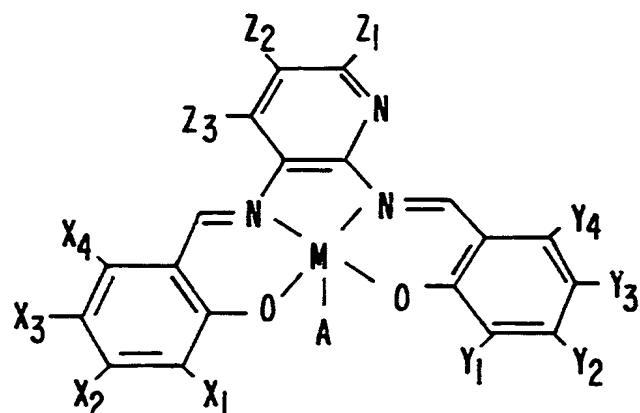


FIG. 26A.

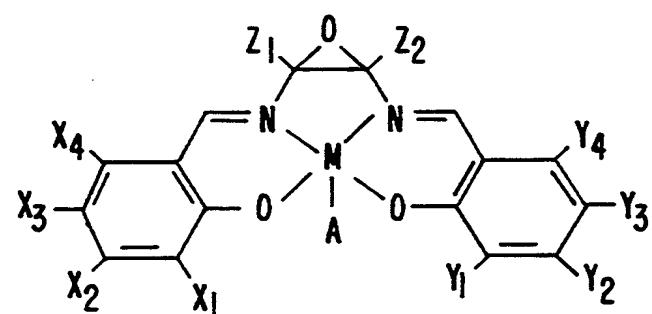
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STRUCTURE XIII



STRUCTURE XIV



STRUCTURE XV

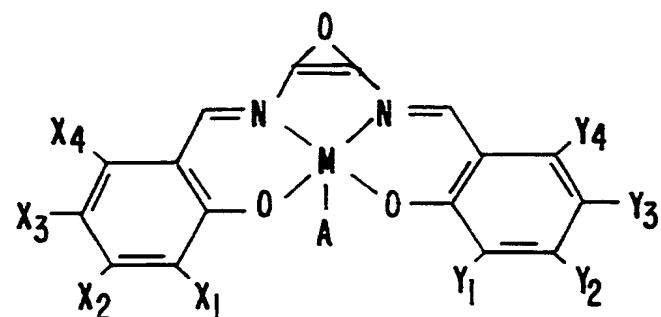
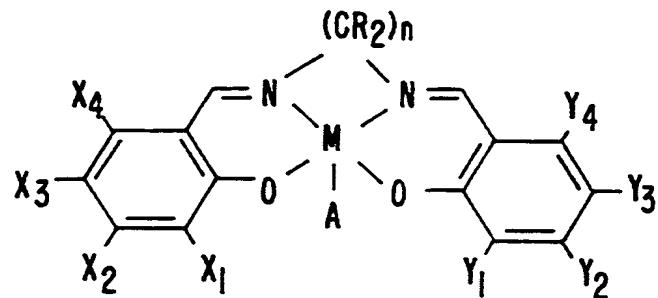


FIG. 26B.

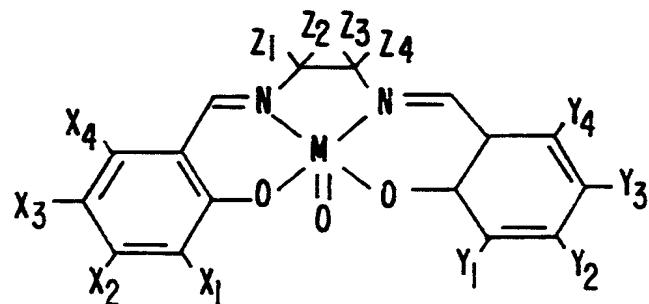
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## STRUCTURE XVI



## STRUCTURE XVII



## STRUCTURE XVIII

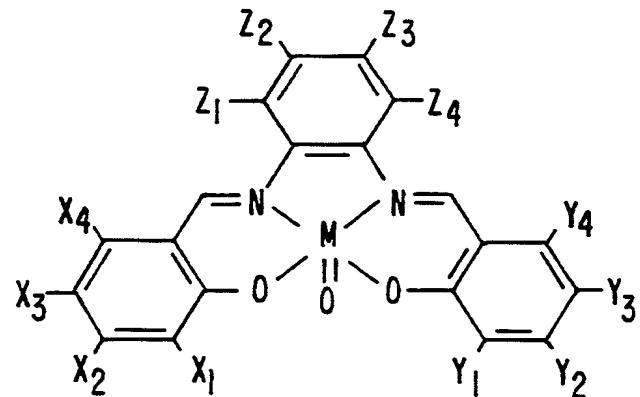
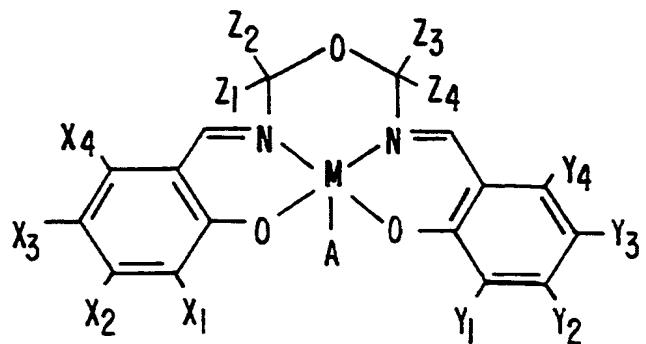


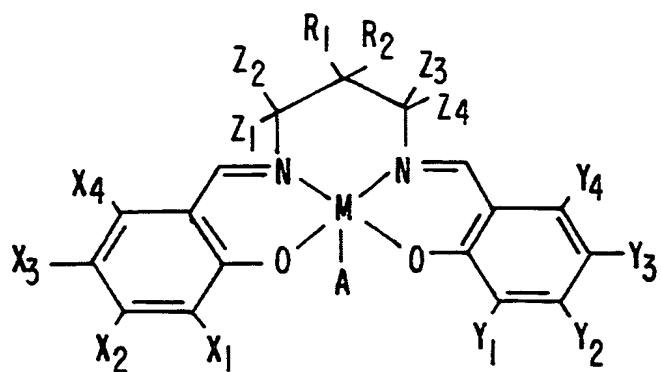
FIG. 26C.

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## STRUCTURE XIX



## STRUCTURE XX



## STRUCTURE XXI

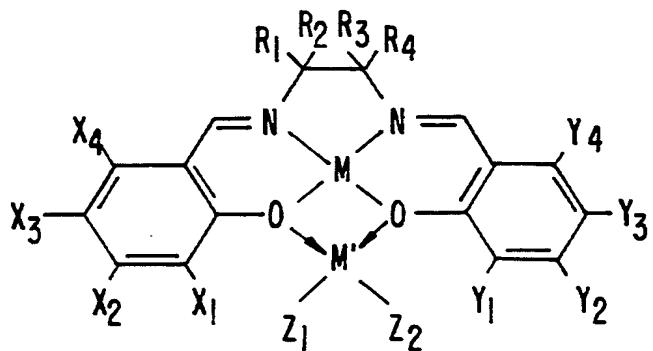
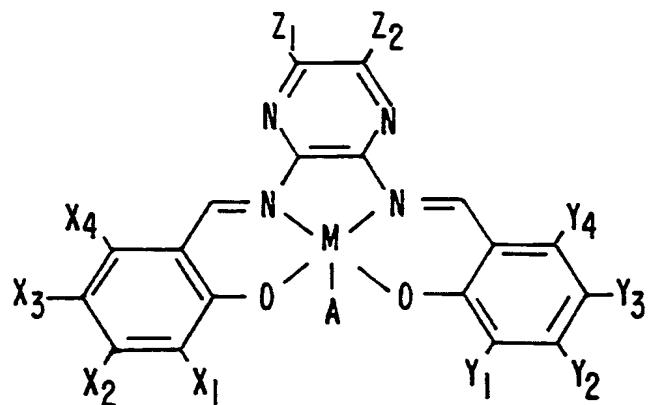


FIG. 26D.

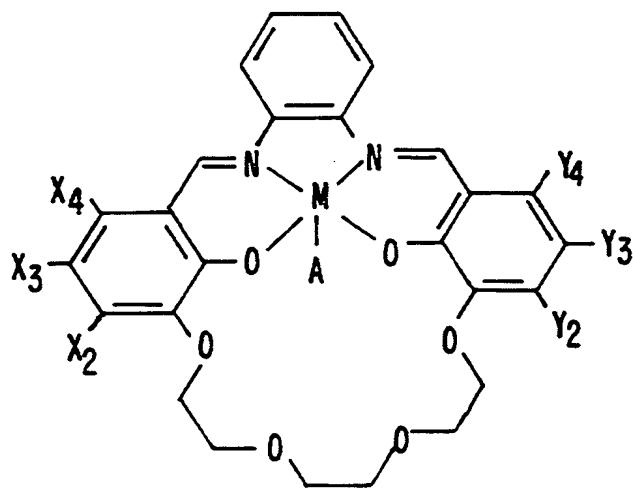
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## STRUCTURE XXII



## STRUCTURE XXIII



## STRUCTURE XXIV

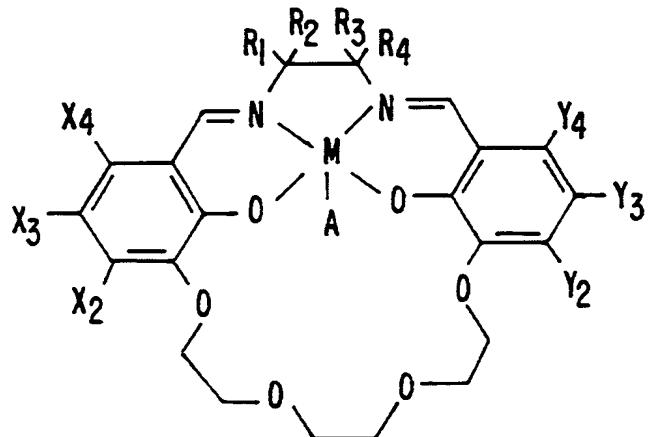


FIG. 26E.

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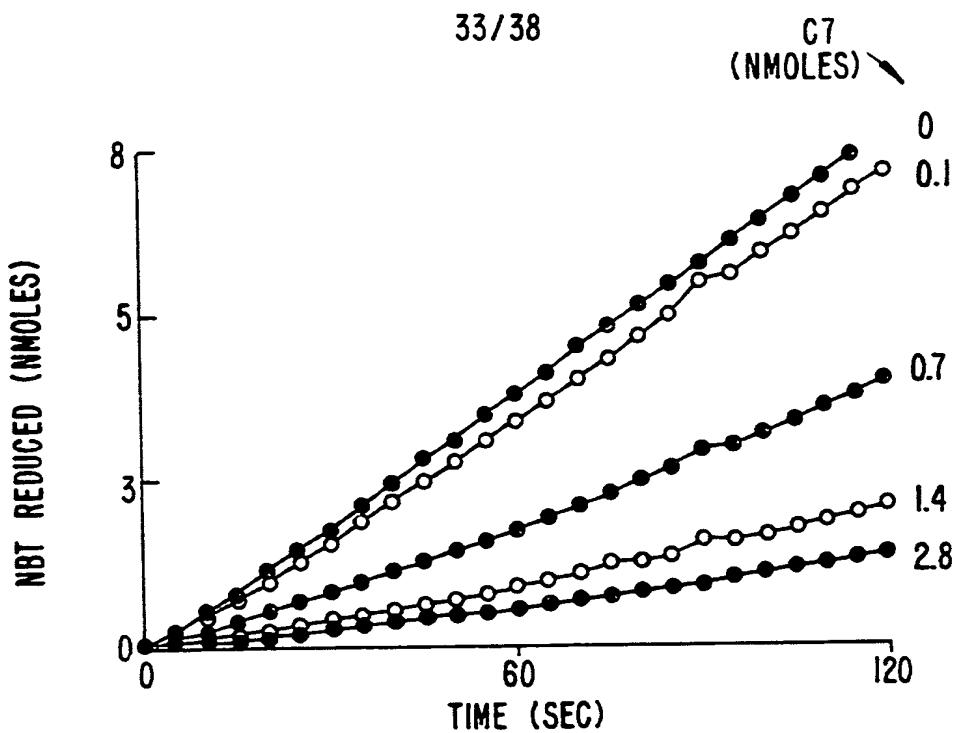


FIG. 27A.

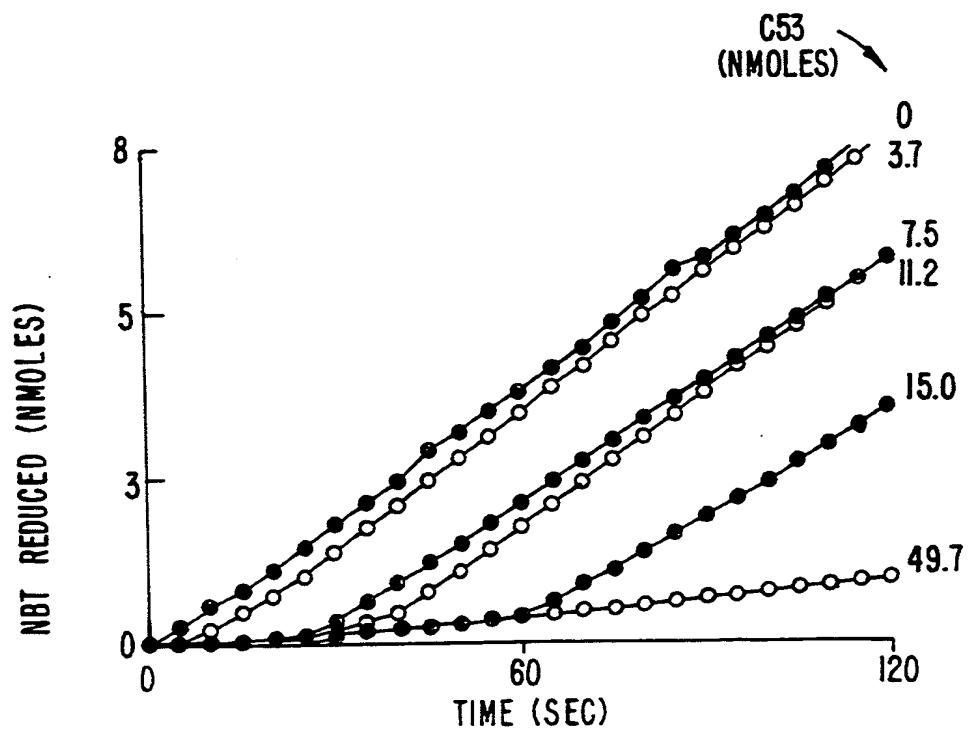


FIG. 27B.

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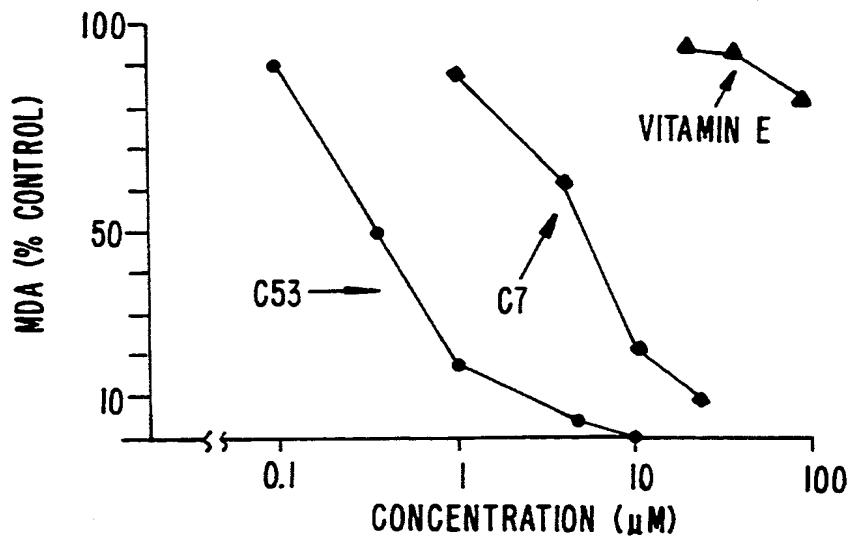


FIG. 28.

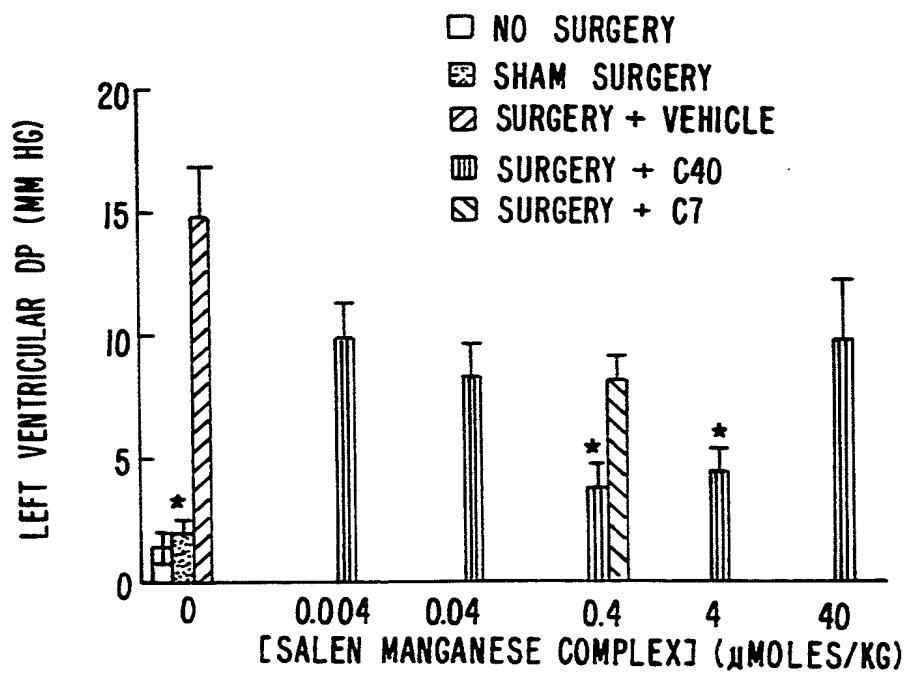
\* =  $p < 0.01$  VS VEHICLE

FIG. 29.

n9/n29686

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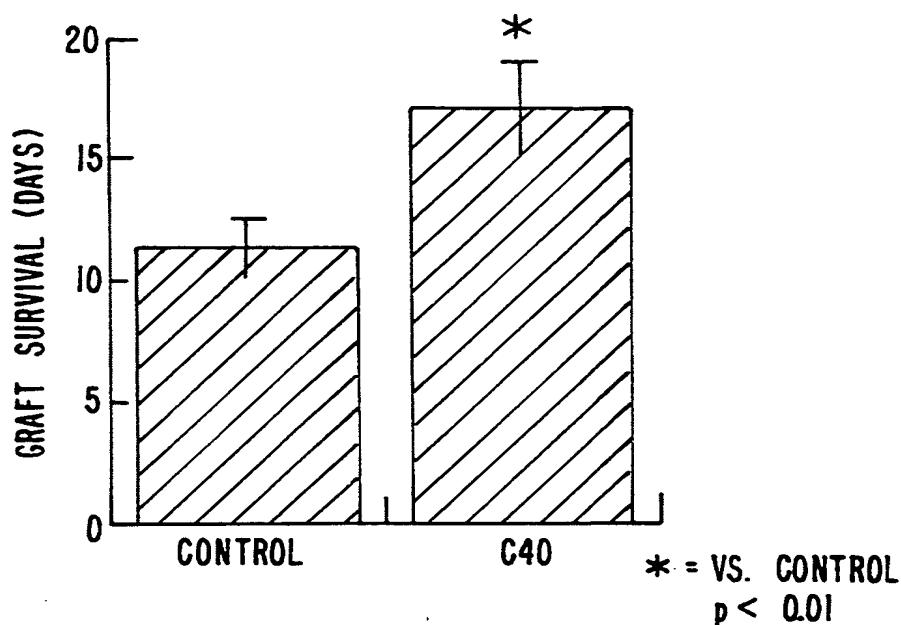
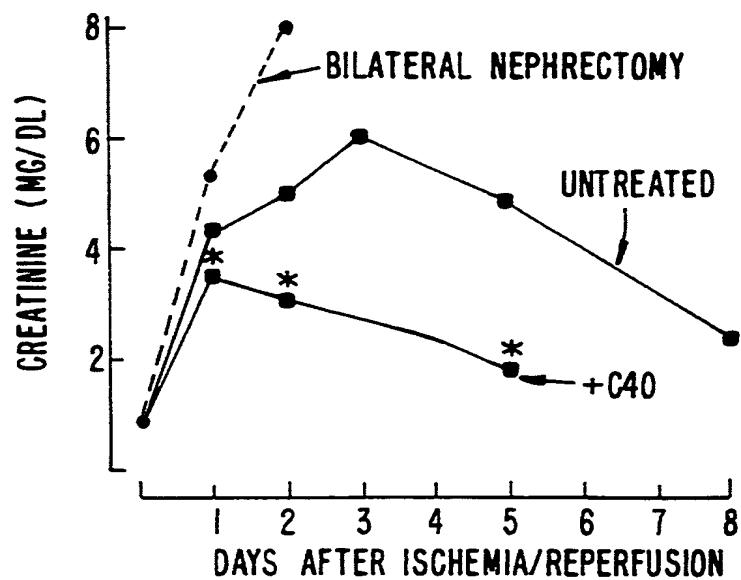


FIG. 30.



\* = VS. UNTREATED  
 $(p, 0.02)$

FIG. 31.

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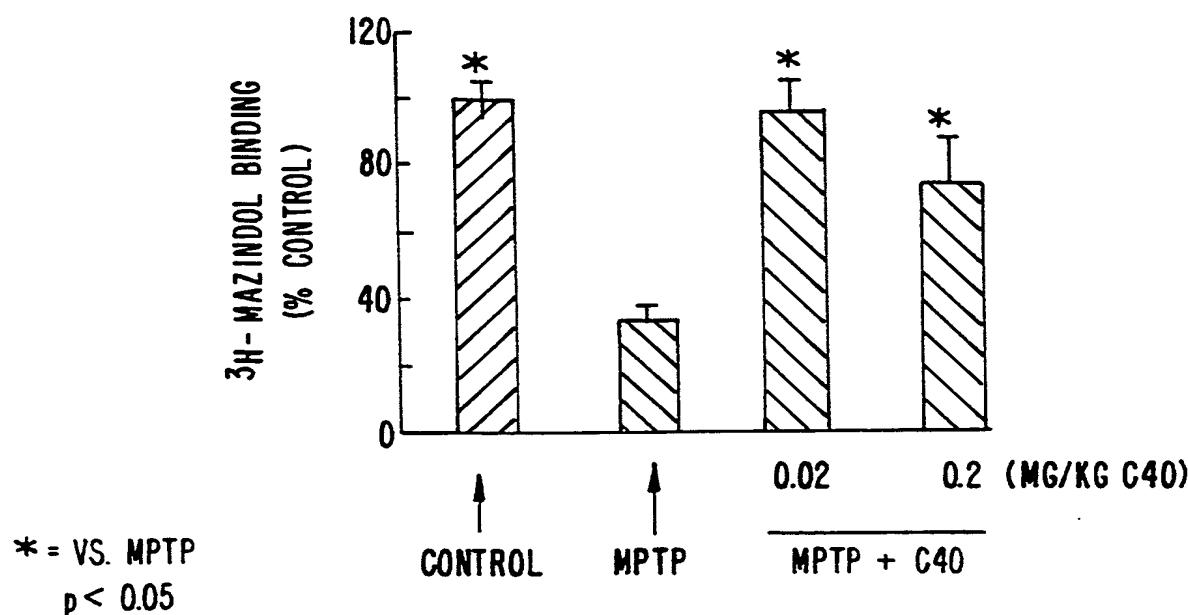


FIG. 32.

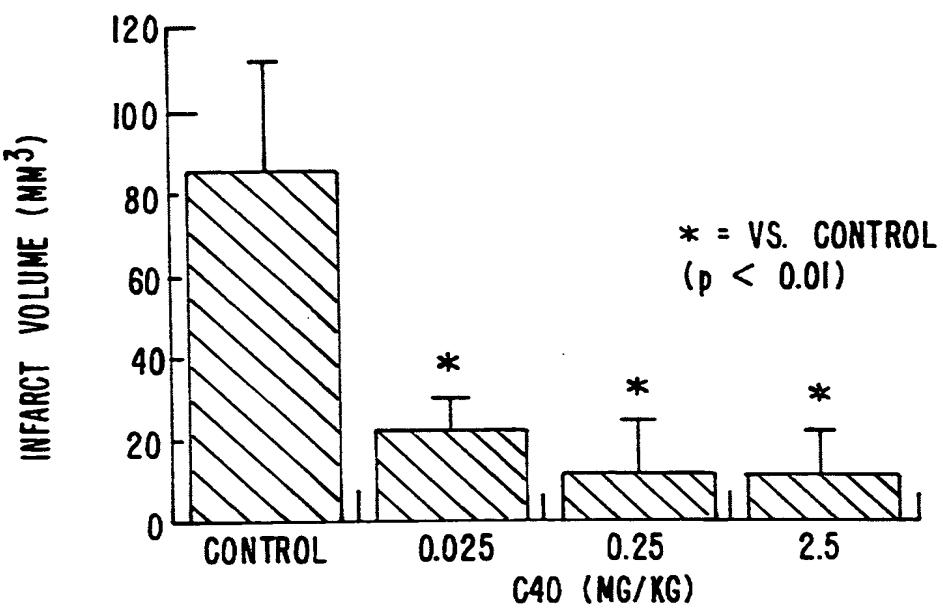


FIG. 33.

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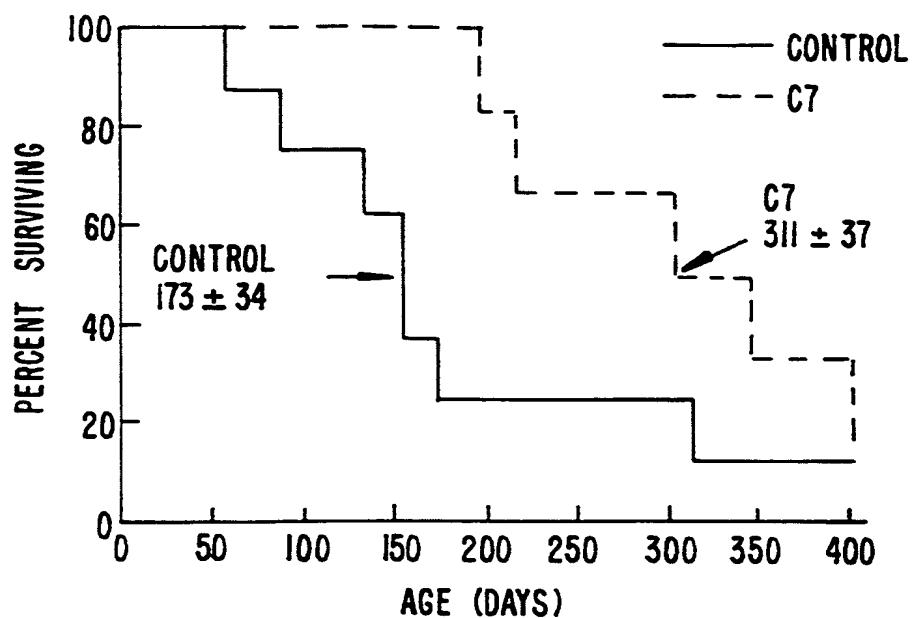


FIG. 35.

a = VS. VEHICLE CHALLENGE

b = VS. PRESENSITIZED + HAPten CHALLENGE

(p<0.05) MEAN  $\pm$  SD, n=5

□ VEHICLE CHALLENGE

▨ HAPten CHALLENGE

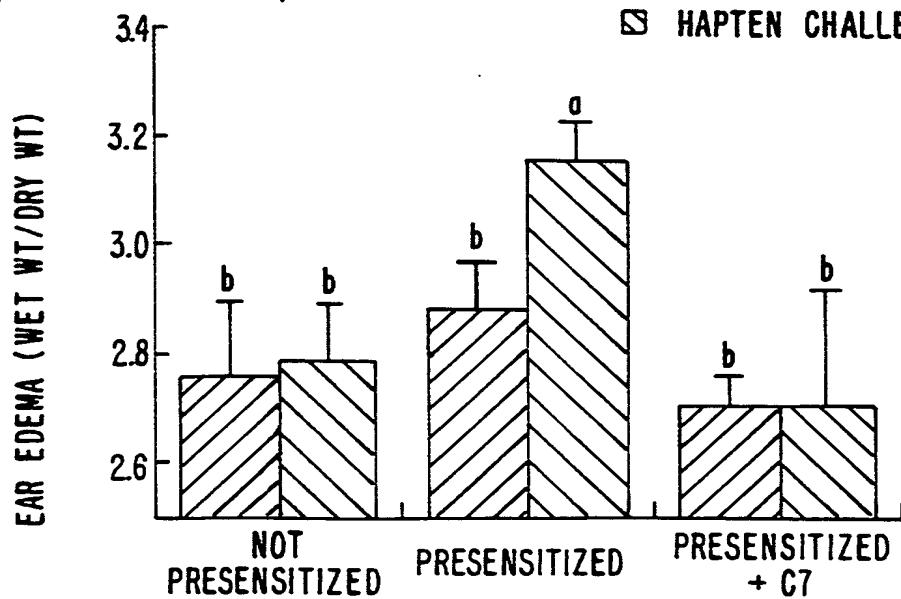


FIG. 34.

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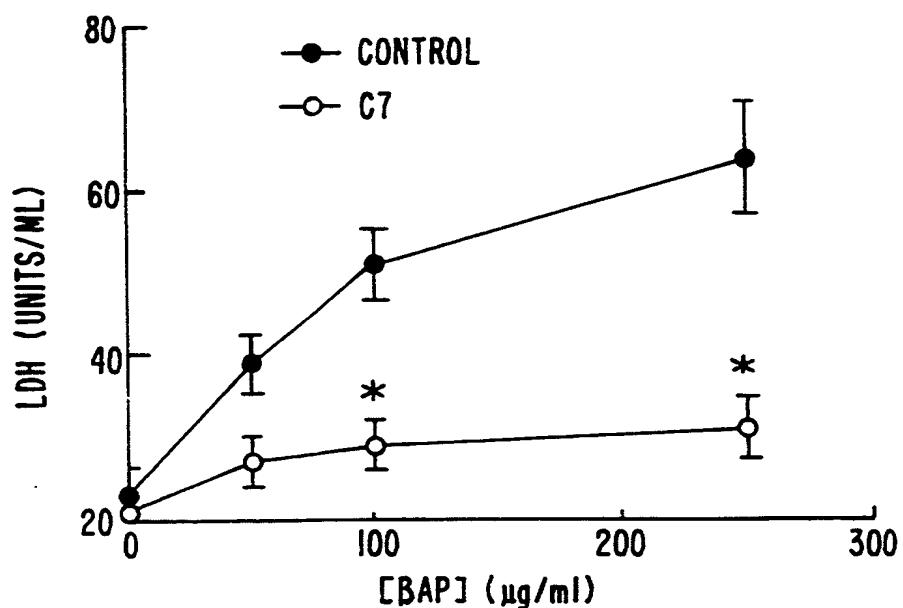


FIG. 36A.

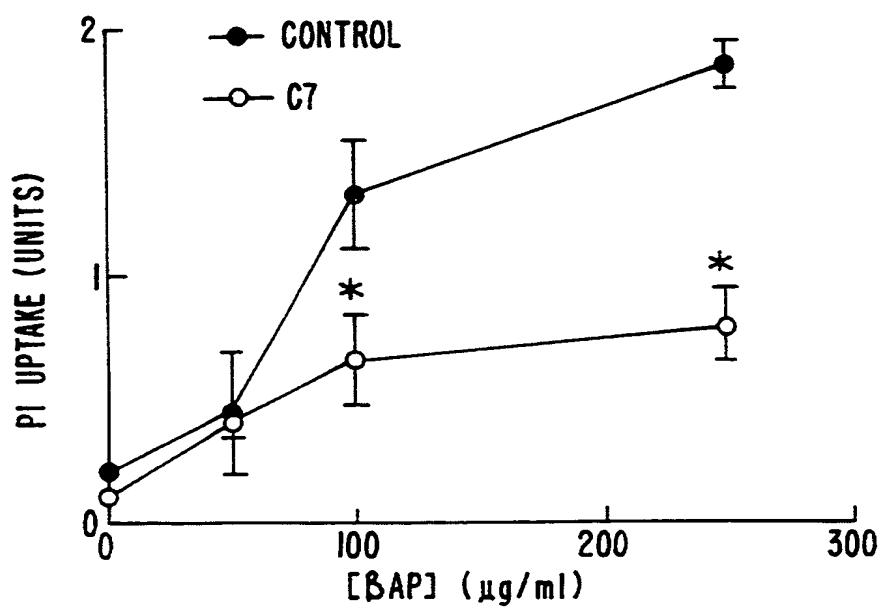


FIG. 36B.